

TREASURY DEPARTMENT
UNITED STATES PUBLIC HEALTH SERVICE
HUGH S. CUMMING, SURGEON GENERAL

**SMALLPOX VACCINATION LAWS
REGULATIONS, AND
COURT DECISIONS**

PREPARED BY
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United States Public Health Service

SUPPLEMENT No. 60
TO THE
PUBLIC HEALTH REPORTS



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON
1927

UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. C. C. PIERCE, *Chief of Division*

The PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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INTRODUCTION

This publication presents the laws and regulations pertaining to vaccination against smallpox now in force in the United States. Included also are abstracts of decisions rendered by State and Federal courts of last resort on the subject of vaccination. In 1912 Public Health Bulletin No. 52, containing vaccination laws and regulations then in force, was issued. The present volume, however, is not a continuation of such bulletin, but has been prepared independently.

The vaccination laws and regulations are by no means completely enforced in the various jurisdictions to which they apply, since the enforcement depends in many instances upon persons who are not primarily concerned with the prevention of smallpox and since the enforcement of adequate and safe vaccination is not easily subject to central control. It is also obvious that the necessary discretionary powers for granting exemption, for example on account of skin disease, may be variously applied. It should, therefore, be borne in mind that a stringent vaccination law does not necessarily mean a well-vaccinated population. In general, however, laws are obeyed, and, as was shown by a survey five years ago (Public Health Reports, August 19, 1921, vol. 36, No. 33, pp. 1979-1989, "Smallpox in Twenty States."), the States with strong vaccination acts have the least smallpox.

The following table shows the codes or compilations and the latest session laws which have been consulted in preparing this publication:

Table Showing Laws Examined

State	Code or compilation examined	Latest session laws examined
Alabama	Code, 1923	
Alaska	Compiled Laws, 1913	1925
Arizona	Revised Statutes, 1913	1925
Arkansas	Crawford and Moses' Digest of the Statutes, 1921	1925
California	Deering's Codes and Laws, 1923	1925
Colorado	Compiled Laws, 1921	1925
Connecticut	General Statutes, Revision of 1918	1925
Delaware	Revised Code, 1915	1925
District of Columbia	Revised Statutes, D. C.; Code, amended to 1924	1925-1926
Florida	Revised General Statutes, 1920	1925
Georgia	Park's Annotated Code, 1914; 1922 and 1926 Supplements	1926
Hawaii	Revised Laws, 1925	1925
Idaho	Compiled Statutes, 1919	1925
Illinois	Cahill's Revised Statutes, 1925	
Indiana	Burns' Annotated Statutes, 1926; Watson's Revision Code, 1924	
Iowa	Revised Statutes, 1923	1925
Kansas	Carroll's Statutes, 1922	1926
Kentucky	Wolff's Statutes, 1920	1926
Louisiana	Revised Statutes, 1916	1925
Maine	Annotated Code, 1924	
Maryland	General Laws, 1921	1926
Massachusetts	Compiled Laws, 1915; Cahill's 1922 Supplement	1926
Michigan	General Statutes, 1923	1925
Minnesota	Hemingway's Code, 1917; 1921 Supplement	1926
Mississippi	Revised Statutes, 1919	1925
Missouri	Revised Codes, 1921	1925
Montana	Compiled Statutes, 1922	1925
Nebraska	Revised Laws, 1912; 1913-1919 Supplement	1925
Nevada	Public Laws, 1926	
New Hampshire	Compiled Statutes, 1910; Cumulative Supplement, 1911-1924	1926
New Jersey	Statutes Annotated, 1915	1925
New Mexico	Cahill's Consolidated Laws, 1923	1926
New York	Consolidated Statutes, 1923	1925
North Carolina		

Table Showing Laws Examined—Continued

State	Code or compilation examined	Latest session laws examined
North Dakota.....	Compiled Laws, 1913; 1913-1925 Supplement.....	
Ohio.....	Page's Annotated General Code, 1926.....	
Oklahoma.....	Compiled Statutes, 1921.....	1925
Oregon.....	Olson's Laws, 1920.....	1925
Pennsylvania.....	Statutes, 1920; Supplement, 1924.....	1926
Philippine Islands.....	Administrative Code, 1917.....	vol. 21
Porto Rico.....	Revised Statutes and Codes, 1911.....	1926
Rhode Island.....	General Laws, 1923.....	1926
South Carolina.....	Code of Laws, 1922.....	1926
South Dakota.....	Revised Code, 1919.....	1925
Tennessee.....	Thompson's Shannon's Code, 1918; 1926 Supplement.....	
Texas.....	Revised Civil and Criminal Statutes, 1925.....	1925
Utah.....	Compiled Laws, 1917.....	1925
Vermont.....	General Laws, 1917.....	1925
Virginia.....	Code of 1919, amended to and including 1924.....	1926
Washington.....	Remington's Compiled Statutes, 1922.....	1925-1926
West Virginia.....	Barnes' Annotated Code, 1923.....	1925
Wisconsin.....	Statutes, 1925.....	
Wyoming.....	Compiled Statutes, 1920.....	1925
United States.....	Compiled Statutes, 1918; 1925 Supplement.....	1925-1926

In connection with the court decisions, the following is explanatory of the abbreviations used in citing same:

- A., Atlantic Reporter.
- Am. Rep., American Reports.
- Am. St. Rep., American State Reports.
- Ann. Cas., American and English Annotated Cases.
- Cal. App., California Appellate Reports.
- F., Federal Reporter.
- L. Ed., United States Supreme Court Reports, Lawyers' Edition.
- L. R. A., Lawyers' Reports, Annotated.
- L. R. A. (N. S.), Lawyers' Reports, Annotated, New Series.
- Mo. App., Missouri Appeal Reports.
- N. E., Northeastern Reporter.
- N. W., Northwestern Reporter.
- N. Y. S., New York Supplement.
- Ohio Cir. Ct. R., Ohio Circuit Court Reports.
- Ohio St., Ohio State Reports.
- P., Pacific Reporter.
- Pa. Superior Ct., Pennsylvania Superior Court Reports.
- S. Ct., Supreme Court Reporter.
- S. E., Southeastern Reporter.
- So., Southern Reporter.
- S. W., Southwestern Reporter.
- Tex. Civ. App., Texas Civil Appeals Reports.
- U. S., United States Reports.

ANALYSIS OF SMALLPOX VACCINATION LAWS AND REGULATIONS

Federal laws and regulations.—There is no Federal law on the subject of vaccination.¹

In 1902 Congress passed a law regulating the sale of biologic products in interstate and foreign commerce. This act provides for the licensing and inspection of establishments preparing biologic products, and the labeling of such products, the purpose of the law being to secure the purity of vaccines, serums, and analogous products.

The United States Quarantine Regulations contain some provisions regarding vaccination, such as the vaccination of persons coming to the United States from localities in foreign countries where smallpox prevails, the vaccination of persons exposed to smallpox on arriving vessels, and the vaccination of officers and subordinates at quarantine stations.

Compulsory general vaccination.—In a few jurisdictions there are provisions requiring general vaccination, in others are laws authorizing the requiring of vaccination, and in still a few others there are prohibitions against making vaccination compulsory, particularly as regards pupils.

In the District of Columbia the vaccination of persons exposed to smallpox is required, as is also the vaccination of every person in the District whenever such action is declared necessary for public health by the commissioners of said District. Regarding the latter provision, an exception is made in the case of persons already protected.

Vaccination of children during infancy is required by law in Hawaii, Kentucky, and Maryland, and by regulation in Porto Rico.

In Kentucky the law requires that unvaccinated persons coming into the State to live shall be vaccinated.

In Massachusetts the law provides that local boards of health, if in their opinion it is necessary for public health or safety, shall require and enforce the vaccination and revaccination of all the inhabitants of their towns.

In the Philippine Islands there is a provision that every nonimmune person shall submit to vaccination when lawfully required. There are also other provisions of law relating to general vaccination, and the presentation of children for vaccination at such time as may be specified by proper authority is required.

Vaccination of the inhabitants of Porto Rico is made obligatory by law, but the details of such vaccination are left to the determination of the director of sanitation. Very comprehensive regulations have been adopted providing for vaccination and revaccination and matters connected therewith.

¹Congress in legislating for the District of Columbia has enacted laws relating to vaccination, but these are applicable only to the District.

General vaccination authorized.—There are several States which have laws authorizing compulsory general vaccination.

In Alabama, cities and towns may provide for a system of compulsory vaccination and enforcement of same. Health officers and boards of health in Connecticut may adopt such measures for general vaccination as are deemed proper and necessary. The law in Georgia authorizes county and municipal authorities to require submission to vaccination if thought advisable. In Kansas it is provided that a general and thorough vaccination should be recommended and insisted upon by the local health authorities should smallpox show a tendency to become epidemic. City councils and town boards of trustees in Kentucky are invested with authority to make such ordinances or rules as will secure the vaccination of the inhabitants. The Massachusetts law authorizes town boards of health to require the authorities of incorporated manufacturing companies, almshouses, hospitals, etc., to cause persons in said places to be vaccinated, if deemed necessary. In Mississippi, boards of supervisors in counties in which smallpox exists are empowered to provide by ordinance for compulsory vaccination. The North Carolina statutes provide that the governing body of a city, town, or incorporated village may cause all persons in the city, town, or village limits to be vaccinated, and also give authority to city, town, or county boards of health to make necessary regulations and provisions for the vaccination of the inhabitants of their localities. In first-class cities in Pennsylvania the law states that the regulations of the health departments shall cover and include the compulsory vaccination and revaccination of inmates of certain institutions and of persons attending the same or employed therein. The department of public health in a second-class city may issue an order requiring all persons in the city or any part thereof to be vaccinated, and in third-class cities boards of health are given the power, and it is made their duty to enforce vaccination. In South Carolina authority is given to the councils of incorporated cities or towns to provide by ordinance for general vaccination and revaccination within their respective jurisdictions, and the State board of health is directed to provide by regulation for the vaccination and revaccination of persons not residing within incorporated cities or towns. Municipal and county health authorities in Tennessee may adopt such measure for the general or local vaccination of inhabitants as is deemed proper and necessary. One provision of the Virginia laws empowers local boards of health to provide for compulsory vaccination, another makes unlawful a violation of regulations when compulsory vaccination in an infected boundary has been ordered by the State, county, city, or town board of health, and still another authorizes city and town councils and county boards of supervisors, when occasion requires, to cause persons residing within their jurisdictions to be vaccinated. In Wyoming the State board of health may adopt such measures for general vaccination as are deemed proper and necessary.

Compulsory vaccination prohibited.—In four States, Arizona, Minnesota, North Dakota, and Utah, there are statutory provisions against compulsory vaccination.

The Arizona law provides that no minor child shall be subjected to compulsory vaccination without the consent of the child's parent or guardian. This law, however, has a proviso prohibiting the school

attendance in a school district of unvaccinated children when a smallpox epidemic prevails in such district.

In Minnesota the statute reads, "no rule of the State board [of health] or of any public board or officer shall at any time compel the vaccination of a child, or shall exclude, except during epidemics of smallpox and when approved by the local board of education, a child from the public schools for the reason that such child has not been vaccinated."

The North Dakota law forbids making any form of vaccination or inoculation a condition precedent for the admission of any person to any public or private school or college, or for the exercise of any right, the performance of any duty, or the enjoyment of any privilege, by any person.

By the Utah law it is made unlawful for any board of health, board of education, or any other public board to compel the vaccination of any person, or to make vaccination a condition precedent to school attendance.

Compelling vaccination by physical force.—A provision of the South Dakota statutes makes it unlawful for any board, physician, or person to compel another by the use of physical force to submit to vaccination.

Vaccination required for school attendance.—Vaccination as a prerequisite to attendance at school is required by law in the District of Columbia, Maryland, Massachusetts, New Hampshire, New Mexico, New York, Pennsylvania, Rhode Island, and South Carolina, and by regulation in Arkansas, Kentucky, Porto Rico, and West Virginia. The requirement is applicable to pupils only in the District of Columbia, Maryland, Massachusetts, New Hampshire, New Mexico, Pennsylvania, Rhode Island, and South Carolina; to pupils and teachers in Kentucky; to pupils, teachers, and employees in Arkansas and West Virginia; to pupils, teachers, employees, and caretakers in Porto Rico; and to pupils and other persons in New York. Public schools only are referred to in the District of Columbia, Maryland, Massachusetts, and New Mexico; public and private schools in Arkansas, Kentucky, New Hampshire, New York (apparently), Porto Rico, and Rhode Island; public, private, parochial, and other schools in Pennsylvania; and any school in South Carolina and West Virginia.

In New York the law applies only to first and second class cities. In Virginia there is a provision that teachers and pupils shall, within 10 days after entering a public free school, furnish a vaccination certificate or a certificate of unfitness for vaccination, but the operation of this law may be suspended by any city or county school board.

Statutes authorizing the requirement of vaccination for school attendance.—In six States—Connecticut, Georgia, New Jersey, North Carolina, Ohio, and Oregon—there are laws empowering the authorities to require the vaccination of pupils as a prerequisite to their admission to school. In New Jersey the vaccination of teachers may be required also. The school authorities are given the power to impose the requirement in all the States mentioned except North Carolina, where the power is given to the health authorities. In Maine a statute provides that superintending school committees shall exclude an unvaccinated person, if they deem it expedient, but such person may be excluded only in the event of a smallpox epidemic, if a parent or guardian is opposed to vaccination.

Exclusion of unvaccinated persons from school during prevalence of smallpox.—In several States there are laws or regulations regarding the exclusion of unvaccinated persons from school when smallpox prevails in the community. In Iowa a statute authorizes the exclusion of unvaccinated pupils in a city under special charter when smallpox is prevalent in such city or its vicinity. Other States having statutory provisions pertaining to exclusion from school of the unvaccinated during the existence of smallpox are Minnesota, Montana, New York, West Virginia, and Wisconsin. In Montana the law applies not only when smallpox actually exists but also when it is threatened. The New York statute is effective outside of first and second class cities, vaccination being required as a condition of school attendance in such cities. States having regulations on exclusion during the existence of smallpox are Kansas, Louisiana, Minnesota, Montana, Nebraska, North Dakota, and Washington.

Parental objection to vaccination of children.—In Washington, although there is no statutory provision requiring pupils to be vaccinated, there is a proviso that "children shall not be required to submit to vaccination against the will of their parents or guardian." Maine also has a provision relative to objection by a parent or guardian.

Preventing vaccinated child from attending school.—A South Dakota statute prohibits preventing "a child of school age who furnishes a physician's certificate of successful vaccination with smallpox virus, within five years, from attending public school."

Vaccination methods.—Under a Georgia law it is unlawful to use "any other inoculation than that called vaccination, unless by special commission or authority from the court of ordinary of the county where the smallpox shall make its appearance." In New Mexico there is a proviso in the statutes that "inoculation for the prevention of smallpox by the internal use of variolinum taken under the direction and care of a licensed physician may take the place of vaccination with cowpox where inoculation by vaccination is required by this act." Illinois has detailed regulations regarding approved methods of vaccination; a New York law provides that "Vaccination shall be performed in such manner only as shall be prescribed by the 'State commissioner of health,' and pursuant to this the State commissioner of health has issued comprehensive regulations regarding approved methods of vaccination; and in Porto Rico the only mode of vaccination to be employed is set forth in regulations.

Unfit subjects for vaccination.—In several jurisdictions there are laws or regulations concerning the exemption from vaccination of persons whose physical condition is considered such as to make them unfit subjects for vaccination. Provisions concerning exemption from general vaccination because of unfitness are contained in the statutes of Connecticut, Hawaii (children), South Carolina, Tennessee, and West Virginia; and provisions dealing with unfitness in connection with vaccination for school attendance are found in the laws of Connecticut, Massachusetts, Minnesota, New Hampshire, New Mexico, Rhode Island, and West Virginia, and in the regulations of Arkansas, Pennsylvania, and Washington.

Vaccination rules by school or local health authorities prohibited.—A law of California provides that "The control of smallpox shall be under the direction of the State board of health, and no rule or regu-

lation on the subject of vaccination shall be adopted by school or local health authorities."

Vaccination defined.—Definitions of vaccination for smallpox are contained in the regulations of several jurisdictions—namely, Arkansas, Illinois, Iowa, Nebraska, Nevada, Ohio, and Porto Rico.

Reports and records of vaccinations.—In Hawaii, New York, Philippine Islands, Porto Rico, and Rhode Island there are provisions for reporting or recording vaccinations. The Hawaii law requires the appointed vaccinating officers to keep a faithful record of their transactions and to make an annual report of the same; the New York law requires physicians to report vaccinations to the local health officers, and provides for monthly reports by local health officers to the State health department; the Philippine Islands law requires a vaccinator to make an official record of all vaccinations performed by him; the Porto Rico regulations require physicians, etc., to send to the health authorities reports regarding vaccinations by them, and provide for the keeping by the health authorities of a record of the vaccination and revaccination of the inhabitants; and the Rhode Island law requires the recording of vaccinations performed by physicians employed by towns in connection with the gratuitous vaccination of the inhabitants.

Vaccination history in reporting smallpox.—The regulations of Florida, Illinois, Kansas, Montana, New Mexico, North Dakota, Porto Rico, Washington, and West Virginia provide that the report of a case of smallpox shall show the vaccination history of the patient.

Vaccination of employees.—In Connecticut and Maine there are statutory provisions relative to the vaccination of paper-mill employees; in Kentucky a law requires the vaccination of minor employees and a regulation deals with the vaccination of employees generally; in Massachusetts the local boards of health may require the vaccination of employees of manufacturing corporations; in Porto Rico there are detailed regulations requiring that employees be vaccinated; and in Virginia there is a statutory provision relating to the vaccination of certain laborers.

By a regulation in Minnesota, "A successful vaccination must be required of all officers and employees in State institutions when such individuals are brought into contact in any way whatever with the wards of the institution," and in Colorado a regulation requires the vaccination of probationer nurses in hospitals or sanatoriums unless successfully vaccinated within five years previous.

Vaccination of children admitted to certain State institutions.—A regulation in Montana requires that all children on admission to certain State schools and the State orphans' home must show evidence of successful vaccination or be immediately vaccinated.

Vaccination certificates.—The form of an approved vaccination certificate is given in the Illinois regulations, and what constitutes a satisfactory certificate is set forth in the Louisiana regulations. In Pennsylvania the statute prescribes the contents of a certificate and regulations govern the issuance of same; in the Philippine Islands the certificate shows the date of vaccination and such other pertinent facts as may be specified in forms prescribed by the director of health; in Porto Rico, persons who have complied with the vaccination regulations are entitled to a certificate stating that they have been

vaccinated or revaccinated; in Tennessee it is unlawful for a physician to fraudulently give a certificate of sickness or of vaccination to prevent vaccination; and in West Virginia a penalty is provided for the giving of a false certificate.

Vaccinating officers.—Provisions for the appointment or designation of vaccinating officers or for the employment of physicians to perform vaccination are found in the laws or regulations of Delaware, Hawaii, Kentucky, Maryland, Mississippi, New Hampshire, Ohio, Pennsylvania, Philippine Islands, Porto Rico, Rhode Island, South Carolina, Tennessee, West Virginia, Wisconsin, and Wyoming.

Free vaccination.—There are many States which have laws or regulations providing for or authorizing vaccination at public expense, the classes of persons entitled thereto varying in the different jurisdictions. Provisions relative to free vaccination exist in Alabama (indigent persons), Arizona (persons exposed on railroad cars or at stations), Arkansas (general population), California (persons exposed on railroad cars or at stations; exposed persons generally), Connecticut (indigent pupils; general population), Delaware (indigent persons), District of Columbia (general population), Georgia (nonimmune contacts), Hawaii (general population; pupils), Illinois (general population), Kentucky (indigent persons), Maine (general population), Maryland (indigent children; general population; pupils), Massachusetts (general population), Michigan (general population), Minnesota (general population), Mississippi (pupils; indigent persons; general population), New Hampshire (general population), New Jersey (indigent pupils; general population), New Mexico (indigent pupils; nonimmune contacts), New York (general population; pupils), North Carolina (indigent persons), Ohio (general population; pupils), Oregon (persons exposed on railroad cars or at stations or ports), Pennsylvania (pupils; general population; indigent persons), Philippine Islands (general population), Porto Rico (general population), Rhode Island (general population), South Carolina (indigent persons), Tennessee (general population), Vermont (general population), Virginia (indigent persons), Washington (indigent persons; persons exposed on railroad cars or at stations or ports), West Virginia (indigent persons; general population), Wisconsin (pupils), and Wyoming (contacts).

Vaccine.—There are numerous and varying provisions, either in the statutes or the regulations, pertaining to the securing, keeping, providing, furnishing, or distribution of smallpox vaccine. Such provisions are to be found in Alabama, Alaska, California, Connecticut, Delaware, Florida, Georgia, Illinois, Iowa, Kentucky, Maryland, Massachusetts, Minnesota, Mississippi, New York, Pennsylvania, Philippine Islands, Porto Rico, South Carolina, South Dakota, Vermont, and West Virginia.

Idaho by law and Kentucky, New Mexico, and Porto Rico by regulations impose requirements that biologic products shall be kept at a certain temperature. The Idaho law also requires that biologic products offered for sale or dispensed shall be well within the date stamped on the package and a license for the sale of biologic products is required by the Porto Rico regulations.

The Philippine Islands has a law to insure the purity of biologic products patterned after the Federal act.

In Wisconsin a statute requires that biologic products be stamped with the name of the seller or distributor.

There is a statutory provision in Maryland against the use of defective virus; a regulation in Minnesota prohibiting the use of virus the efficacy of which has been disapproved by the United States Public Health Service; a statute in New Jersey authorizing the State department of health, if it shall ascertain any vaccine virus to be dangerous, impure, etc., to prohibit the sale or use of any vaccine virus produced by the party who manufactured or produced such dangerous, etc., vaccine; and a statute in New York prohibits the use of vaccine virus unless produced under license issued by the Secretary of the Treasury of the United States or under a certificate of approval issued by the State commissioner of health and also provides that such vaccine shall only be used within the period of time specified by the expiration date.

Persons exposed to smallpox.—Laws or regulations, providing that, in the case of nonimmune persons who have been exposed to smallpox, vaccination will relieve from or reduce the period of quarantine, are found in many States. Such provisions, which vary considerably, exist in Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Georgia, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Mexico, Ohio, Oklahoma, Oregon, South Dakota, Tennessee, Texas, Utah, Virginia, and Washington.

There are provisions requiring that all exposed persons be either vaccinated or quarantined in Kentucky, Louisiana, Michigan, New Jersey, New York, and Wisconsin.

In the District of Columbia the vaccination of exposed persons is required by law; in Porto Rico there are regulations providing for the vaccination of certain contacts; and in Wyoming a regulation provides for the quarantine of contacts for 21 days from date of last exposure or until protected by successful vaccination.

REVIEW OF COURT DECISIONS RELATING TO SMALLPOX VACCINATION

The courts have had presented to them various phases of the vaccination question, but most of the decisions relate to the requirement of vaccination. These decisions may be divided into three groups, as follows: (1) Where a State law requires vaccination; (2) where a State law authorizes municipalities or boards to require vaccination; and (3) where no State law expressly requires or authorizes vaccination.

Statute requiring vaccination.—The leading case on compulsory vaccination is that of *Jacobson v. Commonwealth of Massachusetts*, decided by the United States Supreme Court in 1905. The court in that case held constitutional a statute of Massachusetts which provided for general compulsory vaccination when such was deemed necessary for the public health or safety by a local board of health.

The other cases which have involved a statutory requirement of vaccination have been those in which the requirement related to school children. In these cases, State laws requiring vaccination as a condition of school attendance have been uniformly upheld. Decisions to this effect have been rendered in California (*Abeel v. Clark*; *French v. Davidson*), New Hampshire (*Barber v. School Board of Rochester*), New York (*Viemeister v. White*; *In re Walters*), Pennsylvania (*Field v. Robinson*; *Stull v. Reber*), and Washington (*State ex rel. McFadden v. Shorrock*).

In the California case of *State Board of Health v. Board of Trustees of Watsonville School District of Santa Cruz County* it was held to be mandatory upon school trustees to exclude unvaccinated pupils from the public schools where a State law required that pupils be vaccinated.

In Pennsylvania in the case of *Commonwealth ex rel. Carson v. Rowe* it was decided that a statute requiring vaccination of pupils imposed no duty on directors of school districts to exclude unvaccinated children, but that such duty was imposed on principals or teachers. However, such statute was later amended, and in a subsequent case (*Commonwealth ex rel. Schaffer v. Wilkins*) it was held that directors of school districts could be compelled by mandamus to exclude unvaccinated children from the schools.

Under a Massachusetts statute which required the vaccination of pupils before admission to public schools but which exempted from the requirement a child who presented a physician's certificate that such child was not a fit subject for vaccination, it was held in *Hammond v. Town of Hyde Park* that a regulation of a town school committee, excluding temporarily from the schools unvaccinated pupils, was valid, where smallpox was prevalent in the town, even though certain excluded unvaccinated pupils had presented certificates of unfitness. In another case (*Spofford v. Carlton*) involving the same statute a regulation of a city school committee requiring the

renewal every two months of such physician's certificate of unfitness was upheld.

In the New Hampshire case of *Barber v. School Board of Rochester* the meaning of a statute, which required the vaccination of pupils but which exempted a child holding a certificate of unfitness, was declared to be that "a new certificate may be required whenever there is reasonable ground to believe that there may have been such a change of conditions that the child is no longer 'an unfit subject for vaccination.'"

Statute authorizing the requirement of vaccination.—In those cases in which there has been under consideration a State law authorizing political subdivisions of the State or local boards to require vaccination, the decisions have also all been uniform in upholding the requirement. To this effect is the Georgia case of *Morris v. City of Columbus* in which resolutions of a city council, passed pursuant to statutory authority to provide for compulsory vaccination, were held warranted where the municipal authorities had reason to apprehend an epidemic of smallpox. Also in *State v. Hay* and *Morgan v. Stewart* the Supreme Court of North Carolina held valid local requirements imposed pursuant to statutory authority.

The remaining cases, in which action was taken under provisions of law authorizing vaccination, relate to pupils. A municipal ordinance prohibiting the admission to public schools of unvaccinated children was upheld in Alabama in *Herbert v. Demopolis School Board of Education*. In Connecticut a State law authorizing local school committees to require vaccination of pupils was held valid in *Bissell v. Davison*, and in Ohio the supreme court, in *State ex rel. Milhoof v. Board of Education of Village of Barberton*, upheld a regulation, and a statute authorizing the same, requiring vaccination as a prerequisite to the right of pupils to attend the public schools.

Requirement of vaccination in absence of express provision of law.—By far the greatest number of cases relate to the validity of ordinances or regulations making vaccination a condition of admission to school where there is no express statutory provision on the subject. These cases naturally fall into two classes according to their facts. One class includes those cases in which it appears that smallpox was present or apprehended, and the other class embraces those cases where the disease was not present or imminent.

Decisions, holding valid regulations or ordinances requiring the vaccination of pupils as a condition of admission to school when smallpox was present or apprehended in the community, have been rendered as follows: Arkansas (*Auten v. Board of Directors of Special School District of Little Rock*), Illinois (*Hagler v. Larner*), Indiana (*Blue v. Beach*), Kentucky (Board of Trustees of Highland Park Graded Common School District No. 46 *v. McMurtry; Hill v. Bickers*), Michigan (People ex rel. *Hill v. Board of Education of City of Lansing*), Minnesota (State ex rel. *Freeman v. Zimmerman; Bright v. Beard*), Missouri (State ex rel. *O'Bannon v. Cole*), North Carolina (*Hutchins v. School Committee of Town of Durham*), Pennsylvania (*Duffield v. Williamsport School District*), South Dakota (*Glover v. Board of Education of Lead*), Texas (*McSween v. Board of School Trustees of City of Fort Worth; Zucht v. San Antonio School Board; Staffel v.*

San Antonio School Board of Education; City of New Braunfels *v.* Waldschmidt; Abney *v.* Fox), Utah (State ex rel. Cox *v.* Board of Education of Salt Lake City), and Washington (State ex rel. Lehman *v.* Partlow).

In the Illinois case of People ex rel. Jenkins *v.* Board of Education of City of Chicago the court held void an ordinance of the city requiring vaccination of children before admission to school, although, in the district in which instructions had been given to enforce the ordinance, smallpox had been declared to be epidemic. The holding of the court that the ordinance was unreasonable was apparently based on the fact that such ordinance did not provide for temporary exclusion during the emergency in lieu of vaccination.

In another Illinois case (Burroughs *v.* Mortenson) the decision, that the exclusion of an unvaccinated pupil from a school where smallpox had occurred was unlawful, was based on the absence of any rule authorizing the action.

In those cases in which it appears that smallpox was not present or apprehended in the community, ordinances and regulations requiring vaccination of pupils have been sustained as follows: United States Supreme Court (*Zucht v. King*, involving ordinances of San Antonio, Tex.), and Arkansas (State *v.* Martin and Brazil *v.* State).

Decisions adverse to the validity of regulations requiring that pupils be vaccinated, where no smallpox was present or apprehended in the community, have been rendered in Illinois (*Potts v. Breen*; People ex rel. Lawbaugh *v.* Board of Education of District No. 2), Kansas (*Osborn v. Russell*), Michigan (*Mathews v. Board of Education of School District No. 1 of the City and Township of Kalamazoo*), North Dakota (*Rhea v. Board of Education of Devils Lake Special School District*), and Wisconsin (State ex rel. *Adams v. Burdge*).

In State ex rel. Horne *v.* Beil the Indiana Supreme Court compelled by mandamus the enforcement by city school trustees of a rule of the county and city boards of health requiring vaccination of pupils, a smallpox epidemic being threatened.

Admission to State university.—In two cases (*Williams v. Wheeler*; *Wallace v. Regents of University of California*) a rule of the regents of the University of California, requiring vaccination of students, has been upheld.

Compulsory education law and vaccination requirement.—In a New York decision (*People v. Ekerold*) it was held to be no defense, to a prosecution, under the education law, of a parent for failure to cause his child to attend upon instruction, that the child had been excluded from public school because not vaccinated as required by law.

Invalidity of vaccination ordinance because of title.—In *Tones v. Independent School District of Des Moines*, the supreme court of Iowa held invalid a city ordinance, making it unlawful to admit unvaccinated pupils to school, because of a defective title.

Quarantine until consent given to vaccination.—In a case in which a city health commissioner sought to quarantine, until they consented to be vaccinated, certain persons engaged in an express delivery business, because of the possibility of their becoming infected and spreading the disease, the New York Court of Appeals held (*In re Smith*) that the health commissioner had no authority to take such action.

Vaccination defined.—In some of the cases the courts have undertaken to define vaccination. In the Pennsylvania case of *Lee v.*

Marsh, vaccination was held to mean "inoculation with the virus of cowpox for the purpose of communicating that disease as a prophylactic against smallpox" and was held to be accomplished by inserting the virus under the skin. The administration of variolinum or vaccinimum by the mouth was held not to be vaccination as that term was used in a statute requiring the vaccination of school children.

In a Texas case (*Abney v. Fox*) a school board resolution required pupils to be vaccinated by scarification, and the court held that the term vaccination as used and intended meant "scarification and the injection of cowpox into the human system, and did not include the taking of medicine internally, or any other mode of prevention of smallpox."

Another case (*State ex rel. McFadden v. Shorrock*), decided by the Washington Supreme Court, involved an act making it the duty of boards of school directors "to require successful vaccination as a condition of school membership." Concerning the term "successful vaccination," the court agreed with the construction, placed thereon by a board of school directors, "that a person was successfully vaccinated when the customary reaction was obtained by the operation, or when three operations had been performed without obtaining reaction."

Vaccination certificate.—*Lee v. Marsh* (Pennsylvania), in addition to defining vaccination, held obligatory the use of a form of vaccination certificate prescribed by the State department of health, which form prevented ambiguity and required the certifying physician to use words in the same sense with which they were used in a statute requiring the vaccination of pupils.

Liability of city for negligence in connection with vaccination.—In two States, Georgia (*Wyatt v. City of Rome*) and Pennsylvania (*Howard v. City of Philadelphia*), the liability of a city, on the ground of negligence in connection with the performance of vaccination, was denied. In both cases it was held that the city was engaged in performing a governmental function.

Purchase of vaccine.—In *Daniel v. Putnam County*, a Georgia case decided in 1901, it was held that counties had no power under the then existing law to purchase smallpox vaccine.

Payment for services rendered in vaccinating persons.—Several decisions have been rendered which involved the question of payment for the performance of vaccinations. These cases are as follows: Alabama (Commissioners' Court of Perry County *v. Medical Society of Perry County*), Georgia (*Barksdale v. Hayes*), Indiana (City of Fort Wayne *v. Rosenthal*), Maryland (County Commissioners of Allegany County *v. McClintock*), Michigan (*Keho v. Board of Auditors of Bay County*), New Hampshire (*Wilkinson v. Albany*), South Carolina (*Mathias v. Lexington County*), and Vermont (*Hazen v. Strong*).

TEXT OF SMALLPOX VACCINATION LAWS AND REGULATIONS AND ABSTRACTS OF COURT DECISIONS

United States

[Act of Congress, July 1, 1902, 32 Stat. 728]

Biologic products, regulation of sale, etc.; labeling.—That from and after six months after the promulgation of the regulations authorized by section 4 of this act no person shall sell, barter, or exchange, or offer for sale, barter, or exchange in the District of Columbia, or send, carry, or bring for sale, barter, or exchange from any State, Territory, or the District of Columbia into any State, Territory, or the District of Columbia, or from any foreign country into the United States, or from the United States into any foreign country, any virus, therapeutic serum, toxin, antitoxin, or analogous product applicable to the prevention and cure of diseases of man, unless (a) such virus, serum, toxin, antitoxin, or product has been propagated and prepared at an establishment holding an unsuspended and unrevoiced license, issued by the Secretary of the Treasury as hereinafter authorized, to propagate and prepare such virus, serum, toxin, antitoxin, or product for sale in the District of Columbia, or for sending, bringing, or carrying from place to place aforesaid; nor (b) unless each package of such virus, serum, toxin, antitoxin, or product is plainly marked with the proper name of the article contained therein, the name, address, and license number of the manufacturer, and the date beyond which the contents can not be expected beyond reasonable doubt to yield their specific results: *Provided*, That the suspension or revocation of any license shall not prevent the sale, barter, or exchange of any virus, serum, toxin, antitoxin, or product aforesaid which has been sold and delivered by the licentiate prior to such suspension or revocation, unless the owner or custodian of such virus, serum, toxin, antitoxin, or product aforesaid has been notified by the Secretary of the Treasury not to sell, barter, or exchange the same.

SEC. 2. False labeling prohibited.—That no person shall falsely label or mark any package or container of any virus, serum, toxin, antitoxin, or product aforesaid; nor alter any label or mark on any package or container of any virus, serum, toxin, antitoxin, or product aforesaid so as to falsify such label or mark.

SEC. 3. Inspection of establishments.—That any officer, agent, or employee of the Treasury Department, duly detailed by the Secretary of the Treasury for that purpose, may during all reasonable hours enter and inspect any establishment for the propagation and preparation of any virus, serum, toxin, antitoxin, or product aforesaid for sale, barter, or exchange in the District of Columbia, or to be sent, carried, or brought from any State, Territory, or the District of Columbia into any other State or Territory or the District of Columbia, or from the United States into any foreign country, or from any foreign country into the United States.

SEC. 4. Board created; promulgation of regulations governing licenses; licensing of foreign establishments.—That the Surgeon General of the Army, the Surgeon General of the Navy, and the Supervising Surgeon General of the Marine Hospital Service be, and they are hereby, constituted a board with authority, subject to the approval of the Secretary of the Treasury, to promulgate from time to time such rules as may be necessary in the judgment of said board to govern the issue, suspension, and revocation of licenses for the maintenance of establishments for the propagation and preparation of viruses, serums, toxins, antitoxins, and analogous products, applicable to the prevention and cure of diseases of man, intended for sale in the District of Columbia, or to be sent, carried, or brought for sale from any State, Territory, or the District of Columbia into any other State, Territory, or the District of Columbia, or from the United States into any foreign country, or from any foreign country into the United States: *Provided*, That all licenses issued for the maintenance of establishments for the propagation and preparation in any foreign country of any virus, serum, toxin,

antitoxin, or product aforesaid for sale, barter, or exchange in the United States, shall be issued upon condition that the licentiates will permit the inspection of the establishments where said articles are propagated and prepared, in accordance with section 3 of this act.

SEC. 5. Powers and duties of Secretary of the Treasury.—That the Secretary of the Treasury be, and he is hereby, authorized and directed to enforce the provisions of this act and of such rules and regulations as may be made by authority thereof; to issue, suspend, and revoke licenses for the maintenance of establishments aforesaid, and to detail for the discharge of such duties such officers, agents, and employees of the Treasury Department as may in his judgment be necessary.

SEC. 6. Interference with officials prohibited.—That no person shall interfere with any officer, agent, or employee of the Treasury Department in the performance of any duty imposed upon him by this act or by regulations made by authority thereof.

SEC. 7. Penalty.—That any person who shall violate, or aid or abet in violating, any of the provisions of this act shall be punished by a fine not exceeding \$500 or by imprisonment not exceeding one year, or by both such fine and imprisonment, in the discretion of the court.

SEC. 8. Repeal.—That all acts and parts of acts inconsistent with the provisions of this act be, and the same are hereby, repealed.

[Quarantine regulations, 1920]

[General requirements at sea.] 22. *Vaccination on vessels.*— * * * In the case of smallpox [appearing on board a ship while at sea], the entire personnel should be vaccinated.

26. *Vaccine virus, carrying on vessels.*— * * * It is suggested that a vessel should carry * * * an adequate supply of fresh vaccine virus.

[General requirements at domestic ports.] 30. *Vaccination of personnel at quarantine stations.*— * * * and at all [quarantine] stations the personnel shall be vaccinated against smallpox. Officers when entering upon a tour of duty at a quarantine station should be vaccinated against smallpox, and the same shall apply to all subordinates and their families on the station.

[Special measures against smallpox at foreign and insular ports.] 108. *Vaccination of persons from infected districts and contacts.*—Passengers and crew coming from districts where smallpox prevails in epidemic form, or who have been exposed to smallpox, should be vaccinated before embarkation, unless they show satisfactory evidence of having acquired immunity to smallpox by previous attack, or successful vaccination within one year, * * *.

[Special measures against smallpox at port of arrival.] 110. *Vaccination or quarantine of contacts.*—Vessels arriving with smallpox on board, or having had smallpox on board during the voyage, shall be treated as follows: * * *

(b) All persons who in the opinion of the quarantine officer have been exposed to the infection shall be vaccinated, unless protected by a previous attack of smallpox, and detained in quarantine until the vaccination is protective against said exposure, or, if they refuse vaccination, detained in quarantine for 14 days after last exposure to the infection. * * *

[Canadian and Mexican border quarantine.] 135. *Vaccination of persons from infected localities.*—Persons coming from localities where smallpox is prevailing shall not be allowed entry without vaccination, unless they are protected by a previous attack of the disease or a recent successful vaccination.

[Court decisions]

(United States Supreme Court; *Jacobson v. Commonwealth of Massachusetts*, 25 S. Ct. 358; 197 U. S. 11; 49 L. Ed. 643; decided 1905.) A Massachusetts statute providing for compulsory vaccination, when deemed necessary for the public health or safety by the local board of health, was held constitutional. ↗

(United States Supreme Court; *Zucht v. King*, 43 S. Ct. 24; 260 U. S. 174; 67 L. Ed. 194; decided 1922.) Ordinances of the city of San Antonio, Tex., which provided that no child or other person should attend a public school or other place of education without having first presented a certificate of vaccination, were held valid.

(United States District Court for the Eastern District of Pennsylvania; *Gillin v. Board of Public Education of City of Philadelphia*, 250 F. 649; decided 1918.) A parent refused to comply with a Pennsylvania law which required the vaccination of children as a prerequisite to admission to school. No penalty

was attached for failure to comply with the vaccination law, but a penalty was imposed on the parent for a violation of another law requiring the attendance of children at school. The case was fully heard and the decisions of the State courts were against the parent. He then applied to the United States district court for an injunction to restrain further proceedings against him for another violation of the State law, but the Federal court refused an injunction. The court stated that the real complaint of the plaintiff was that the questions of law should have been determined otherwise than as decided, but held that it had no authority under the fourteenth amendment to the Constitution of the United States to interfere.

Alabama

[Code, 1923]

1058. Free vaccination of indigent persons.—It shall be the duty of the county health officer:

(3) To obtain as needed, at the expense of the county, a sufficient supply of vaccine virus with which to vaccinate, without charge, all indigent persons of the county who may apply at his office, or at the offices of such physicians throughout the county as may be supplied with vaccine virus for the purpose of assisting him in the vaccination of such persons.

1093. Isolation of unvaccinated contacts until vaccinated; isolation of unvaccinated persons until vaccinated during outbreak.— * * * Whenever the disease is smallpox, or suspected of being smallpox, it shall be unlawful for any person who has been exposed to infection therefrom and who has not been successfully vaccinated to appear in any public place or any place other than his own home until after he is successfully vaccinated, and it shall be the duty of the county health officer to isolate in their own homes all persons who have been exposed to infection from another person infected with smallpox until they have been successfully vaccinated. In the event of an outbreak in any community it shall be unlawful for any person who has not been successfully vaccinated to be found in any public place or in any place other than his own home, and it shall be the duty of the State health officer to have such person isolated and confined in his own home until he is successfully vaccinated. * * *

2032. Compulsory vaccination authorized.— * * * all cities and towns of this State shall have the following powers, and the councils of such cities and towns may provide by ordinance or resolution for the exercise or enforcement of the same. * * *

2047. To adopt all necessary ordinances and enforce the same to prevent the introduction or spread of contagious, infectious, or pestilential diseases in the cities or towns, and to that end may provide for a system of compulsory vaccination and enforcement of the same.

[Court decisions]

(Alabama Supreme Court; Commissioners' Court of Perry County *v.* Medical Society of Perry County, 29 So. 586; 128 Ala. 257; decided 1900.) A county medical society and certain practicing physicians, members of the society, were denied an injunction to restrain the commissioners' court of the county and certain other county officials from paying money to a physician for services rendered under a contract between the commissioners' court and the physician for the vaccination of persons to prevent the spread of smallpox in the county.

(Alabama Supreme Court; *Herbert v. Demopolis School Board of Education*, 73 So. 321; 197 Ala. 617; decided 1916.) A municipal ordinance prohibiting the admission to public schools of unvaccinated children was upheld. The ordinance was enacted under a statute authorizing municipalities to "provide for a system of compulsory vaccination and enforcement of the same."

Alaska

[Acts of 1919, ch. 35]

Sec. 3 [as amended by ch. 13, acts of 1925]. * * *

9. Biologic products, securing and distribution.—He [the Territorial commissioner of health] shall secure and distribute antitoxins, vaccines, and serums.

[Reg. Commissioner of H.]

*Smallpox * * * - * * **

(3) *Vaccination of contacts.*—In case of smallpox, members of the household and contacts must be vaccinated, or show a fresh vaccination scar, before leaving the premises.

Arizona

[Initiative measure approved by voters November 5, 1918; effective December 5, 1918]

SECTION 1. Children, compulsory vaccination prohibited; school attendance during smallpox epidemic.—No minor child shall be subjected to compulsory vaccination without the consent of the parent or guardian having the care, custody, or control of such minor: *Provided, however,* That no minor child shall be permitted to attend any public school in any school district in the State of Arizona during the period in which a smallpox epidemic may be prevalent in said school district unless said minor child shall have first been vaccinated.

† **SEC. 2. Repeal.**—That paragraph 4396, chapter 1, title 41, of the Revised Statutes of Arizona, 1913, civil code, be, and the same is hereby, repealed.

[Reg. Bd. of H.]

SEC. 17. Contacts on railroad cars, free vaccination.— * * * Should the discovery be made of the existence among the passengers [on railroad cars coming into the State] of any case or cases of dangerous, contagious, or infectious diseases, the said [State] board of health or the superintendent of public health, under the rules and conditions prescribed for them as being applicable to the nature of the disease, shall have the power * * * in case of smallpox, to offer free vaccination to all persons exposed in any car or at any station.

[*Rules for isolation and exclusion from school.—Smallpox.*] Duration of exclusion from date of onset—

When patient goes to hospital—

Other children of the same household—

Exclude until twenty-second day after child last saw patient or 7 days after successful vaccination and disinfection of person.

Other children especially exposed who remain at home—

Exclude until 22 days after quarantine has been raised or 7 days after successful vaccination and disinfection of person.

When patient remains isolated at home—

Children who leave household as soon as disease is discovered—

Exclude until twenty-second day after child last saw patient or 7 days after successful vaccination and disinfection of person.

Children exposed at school—

Exclude 22 days or 7 days after successful vaccination, unless they have been successfully vaccinated within one year, in which case they may return at once.

Remarks—

When smallpox occurs in connection with a school or with any of the children's homes, an endeavor should be made to have all persons vaccinated.

Arkansas

[Reg. Bd. of H.]

43. Contacts, vaccination or isolation.—All persons who have been exposed, or are likely to have been exposed, to smallpox shall be immediately vaccinated, and shall be under observation for 14 days from date of last exposure, unless they have had smallpox or have been successfully vaccinated within one year. All persons refusing to be vaccinated shall remain isolated 14 days.

44. Free vaccination.—Health officers shall vaccinate free, at stated hours and places, all persons who may apply for vaccination.

Vaccination defined.—Vaccination for smallpox is the introduction, by scarification, of the bovine vaccine virus through the skin.

146. Pupils, teachers, and school employees, vaccination required; unfit subjects.—No person shall be entered as a teacher, employee, or pupil in a public or private school in this State without having first presented to the principal in charge or the proper authorities a certificate from a licensed and competent physician of this State certifying that the said teacher, employee, or pupil has been successfully

vaccinated; or in lieu of a certificate of successful vaccination, a certificate certifying a recent vaccination done in a proper manner by a competent physician; or a certificate showing immunity from having had smallpox. The responsibility for the enforcement of this regulation shall rest equally on each and every member of the school board, the superintendent, principal, or teacher in charge, and the parent or guardian of the pupil, and each of them shall be separately and individually liable for permitting any violation of this regulation. If, in the discretion of the health officer having jurisdiction, any person to whom this regulation applies shall have physical disability which may contraindicate vaccination, a certificate to that effect, issued by the said health officer, stating the contraindication, may be accepted in lieu of a certificate of vaccination: *Provided*, That the exemption shall not apply when such disability shall have been removed.

[Court decisions]

(Arkansas Supreme Court; *Auten v. Board of Directors of Special School District of Little Rock*, 104 S. W. 130; 83 Ark. 431; decided 1907.) A rule of a school board required that, before being admitted to school, a pupil should present a physician's certificate showing successful vaccination or immunity from vaccination by repeated trials. The rule was made in obedience to a city board of health order and a city ordinance, and, when made, smallpox was present in the community. The requirement was upheld by the court.

(Arkansas Supreme Court; *State v. Martin and Brazil v. State*, 204 S. W. 622; 134 Ark. 420; decided 1918.) A regulation of the State board of health which required the vaccination of pupils as a prerequisite to school attendance was held valid. The regulation in question was adopted pursuant to a statute giving the said board power to make all necessary and reasonable regulations of a general nature for the suppression and prevention of communicable diseases. At the time of the adoption of the regulation smallpox was prevalent in the State but the disease was not prevalent or threatened in the particular communities involved at the time when the instant cases arose.

California

[Acts of 1921, ch. 370]

SECTION 1. Smallpox, control; vaccination rules, adoption.—The control of smallpox shall be under the direction of the State board of health, and no rule or regulation on the subject of vaccination shall be adopted by school or local health authorities.

[SEC. 2 repeals ch. 134, acts of 1911.]

[Acts of 1883, ch. 90]

SEC. 3. Contacts on railroad cars, free vaccination.— * * * in the case of smallpox [should any case of the disease be discovered among the passengers on any railroad car coming into the State, the State board of health or its agent or inspector shall have power] to offer free vaccination to all persons exposed in any car or at any station.

[Deering's Political Code, 1923]

Sec. 2979. Vaccine, preparation or purchase and distribution.— * * * It [the State board of health] shall have power to prepare or purchase and distribute at cost * * * vaccine * * *.

[Reg. Bd. of H.]

RULE 4. Instructions to the household.—It shall be the duty of the physician in attendance on a person having smallpox, or suspected of having smallpox, to instruct the members of the household in precautionary measures for preventing the spread of smallpox.

NOTE.—The following instructions are required by rule 4:

* * * * *

(3) The persons caring for the patient shall be vaccinated with fresh smallpox vaccine immediately prior to assuming such care.

* * * * *

RULE 5. Investigation of case.—Upon being notified of a case of smallpox, or a case suspected of being smallpox, the local health officer shall make an investigation * * *. The local health officer shall determine that the instructions

specified in rule 4 are understood and observed, and in the event of their nonobservance shall take proper legal steps for their enforcement.

NOTE.—The record of investigation should include * * * the age of the patient's first vaccination scar and the dates of revaccination * * *

* * * * *
RULE 7. Contacts, vaccination or quarantine.—No person who shall have been exposed to the risk of contracting smallpox by proximity to a person suffering with that disease shall be released from quarantine except upon the following conditions:

First. He shall prove to the satisfaction of the local health authority or the secretary of the State board of health that he has had smallpox, or

Second. He shall prove to the satisfaction of the local health authority or the secretary of the State board of health that he has been successfully vaccinated against smallpox within the past five years, or

Third. He shall submit to vaccination against smallpox.

Quarantine shall be for a period of 14 days from the date of last exposure.

NOTE 1.—Vaccination within three days after exposure to a patient in the eruptive stage of smallpox the beginning of which stage is the time when the infection first becomes transmissible, will prevent smallpox; vaccination after the third day will modify the onset; and vaccination within the first 10 days after symptoms have appeared will hasten the recovery even if the onset and character of the eruption are not modified. It is therefore important to secure the vaccination of all contacts as well as the patient.

NOTE 2.—Evidence of immunity, as specified in rule 8, shall be considered to have appeared:

(1) When the areola surrounding the vaccinia vesicle has reached its maximum development. This is normally the tenth day after vaccination in the case of a primary vaccinia, and from the fourth to the seventh day in a secondary vaccinia (vaccinoid).

(2) When an areola at least 5.0 mm. in diameter, with or without a papule, appears at the site within 24 hours after vaccination, rises to a maximum development in 48 hours, and fades without developing a vesicle (reaction of immunity).

RULE 8. Release from quarantine.—As soon as a person has recovered from smallpox—i. e., when the scabs have separated and the scars have completely healed—the attending physician shall notify the local health officer. The patient and attendants may then be released from quarantine, but any unvaccinated person remaining on the premises shall be held in quarantine for 12 days after the termination of the quarantine of the patient.

RULE 9. Disinfection.—* * * The area of isolation shall be disinfected under supervision of the local health officer after the termination of quarantine.

NOTE.—*Directions for disinfection.*—Disinfection, while of much less importance than vaccination of contacts, should be performed after the termination of quarantine. * * * The persons who carry out the cleansing of the rooms should be protected by vaccination with fresh smallpox vaccine before undertaking such disinfection.

RULE 10. Free vaccination of contacts.—It shall be the duty of the local health officer to provide, at public expense, free vaccination for all persons who have been exposed to a case of smallpox, or a case suspected of being smallpox.

NOTE.—It is advised that the vaccination technique described in special bulletin on immunization against smallpox be employed.

[Court decisions]

(California Supreme Court; *Abeel v. Clark*, 24 P. 383; 84 Cal. 226; decided 1890.) A statute which required the vaccination of pupils before admission to the public schools was held constitutional.

(California Supreme Court; *French v. Davidson*, 77 P. 663; 143 Cal. 658; decided 1904.) Holds the same as *Abeel v. Clark*, *supra*, the same statute being involved.

(California First District Court of Appeal; *State Board of Health v. Board of Trustees of Watsonville School District of Santa Cruz County*, 110 P. 137; 13 Cal. App. 514; decided 1910.) It was held to be mandatory upon school trustees to exclude unvaccinated pupils from the public schools. The same statute was involved as was under consideration in *Abeel v. Clark* and *French v. Davidson*, *supra*.

(California First District Court of Appeal; *Williams v. Wheeler*, 138 P. 937; 23 Cal. App. 619; decided 1913.) A rule of the regents of the University of California, which required that persons in attendance as students, or applying for enrollment as such, should produce satisfactory evidence of successful vaccination within seven years or else be vaccinated, was upheld, even though a State law, relating to the vaccination of pupils generally, contained a provision exempting persons from the requirement of vaccination contained in the law where there was conscientious opposition to vaccination.

(California First District Court of Appeal; *Wallace v. Regents of University of California*, 242 P. 892; decided 1925.) A rule of the regents of the Univer-

city of California, which required that students show successful vaccination within seven years or be vaccinated, was upheld where the only law on the subject of vaccination was one providing that the control of smallpox should be under the direction of the State board of health and that no rule or regulation on the subject of vaccination should be adopted by school or local health authorities.

Colorado

[Compiled Laws, 1921]

932. Vaccination of inhabitants of towns, etc.—Every board of health of any town, city, or county may make suitable provisions, at any meeting for the inoculation of the inhabitants with cowpox under the direction of the local board of health or health officer.

934. Contacts, vaccination or isolation.—Whenever the health officer of any county, city, or village in this State shall receive reliable notice, or shall otherwise have good reason to believe that there is within the county, city, or village of which he is the health officer, a case of smallpox. * * * it shall be the duty of the health officer, unless he is or shall have been instructed by the board of health, of which he is an executive officer, to do otherwise, * * * to order the prompt isolation or vaccination of persons who have been exposed to smallpox; * * *

[Reg. Bd. of H.]

Reg. 37. *Smallpox (variola)*.— * * *

6. Methods of control

(A) The infected individual and his environment—

* * * * *

3. Immunization—Vaccination.

4. Quarantine—Segregation for 21 days of all exposed persons, not protected by recent successful vaccination or attack of the disease: *Provided, however,* That such persons may choose to be vaccinated at once and be released after disinfection of the person and clothing, with the further provision that they shall report to the local health officer or to the family physician for observation for 21 days or until the vaccination has proved successful. This rule includes school children.

* * * * *

(B) General measures—

NOTE.—General vaccination in infancy, revaccination of children on entering school, and of entire population when the disease is prevalent.

a. Successful vaccination will produce immunity in about eight days.

* * * * *

c. Concerning the compulsory vaccination of school children the following has been furnished to the State board of health by the attorney general's office:

"When smallpox is prevalent, local boards of health may make a regulation requiring all school children to be vaccinated against smallpox, or in lieu thereof remain away from school during the prevalence of smallpox, provided that a history of having had smallpox or a recent successful vaccination against smallpox will be held as sufficient to permit the child to enter school."

REG. 56. * * * RULE 18. Vaccination of probationer nurses.— * * * It is required also that in any hospital or sanatorium, if any probationer nurse has not been successfully vaccinated against smallpox within five years previous, such vaccination shall be done immediately upon her entrance upon her duties.

Connecticut

[General Statutes, Revision of 1918]

SEC. 888 (as amended by ch. 271, acts of 1923). Pupils, vaccination may be required; unfit subjects; free vaccination.—The board of school visitors, town

school committee, or board of education may require every child to be vaccinated before being permitted to attend a public school under its jurisdiction, unless such child shall present a certificate from a physician, approved by the health officer of the town, city, or borough practicing in or near the town where such child shall reside, certifying that, in the opinion of such physician, such vaccination would not be prudent on account of the physical condition of such child. If the parents or guardians of any children shall be unable to pay for such vaccination, the expense thereof shall, on the recommendation of such board or committee, be paid by the town. * * *

SEC. 2388 (as amended by ch. 342, acts of 1919). *Vaccine, procurement for free use of certain persons.*—The State department of health is authorized to procure * * * vaccine lymph * * * for the free use of people of the State upon whom the purchase thereof would impose a financial hardship, and to distribute the same to town, city, and borough health officers, who shall furnish the same to such persons upon recommendation of attending physicians.

SEC. 2432. *General vaccination.*—Health officers and boards of health may adopt such measures for the general vaccination of the inhabitants of their respective towns, cities or boroughs as they shall deem proper and necessary to prevent the introduction or arrest the progress of smallpox, and the expenses in whole or in part of such general vaccination shall upon their order be paid out of the town, city, or borough treasury, as the case may be.

SEC. 2433. *Penalty.*—Every person who shall refuse to be vaccinated, or prevent a person under his care and control from being vaccinated, on application being made by the health officer or board of health or by a physician employed by the health officer or board of health for that purpose, unless in the opinion of another physician it would not be prudent on account of sickness, shall be fined not more than \$5.

SEC. 5310. *Employees of paper manufacturing establishments.*—Whoever shall employ in the manufacture of paper any person who shall not have had the smallpox, or been vaccinated, shall pay to any town all expenses caused it by the sickness of such person with smallpox, contracted while so employed.

[Reg. Dept. of H.]

Reg. 14. *Incubation periods declared.*—For the purpose of this code, the accepted periods of incubation of certain communicable diseases are hereby declared to be as follows, and shall be observed by health officers in controlling contacts and cases of presumably communicable disease; except where otherwise specified (Note 1):

*	*	*	*	*	*	*	*
-----						12 to 21 days (Note 6)	
Smallpox	*	*	*	*	*	*	*

NOTE 1.—The incubation period is apparently prolonged in certain instances, due to unusual resisting power of the mucous membranes or to the weak virulence of the organism.

*	*	*	*	*	*	*	*
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NOTE 6.—Smallpox contacts must be quarantined for the full period of incubation (21 days from date of last exposure) unless there is satisfactory evidence and history of successful vaccination within five years. The period of quarantine may be shortened to 14 days from the date of successful vaccination in the case of susceptible contacts vaccinated subsequent to exposure. Suspicious cases should be held under strict quarantine until a diagnosis is determined.

[Court decision]

(Connecticut Supreme Court of Errors; *Bissell v. Davison*, 32 A. 348; 65 Conn. 183; 29 L. R. A. 251; decided 1894.) A town school committee, acting under a statute authorizing the action, voted to require vaccination as a prerequisite to the admission of pupils to the public schools. Smallpox was not present or threatened, but the court held valid the statute and the vote of the committee thereunder.

Delaware

[Revised Code, 1915]

739. SEC. 4 [as amended by ch. 49, acts of 1917]. *Authority of State board of health.*—* * * it [the State board of health] shall have authority * * * to make such regulations and adopt such measures including * * * vaccination, * * * as it may deem best efficient to eradicate all infectious diseases. * * *

768. SEC. 33. *Free vaccination; certificates; fees to physicians.*—Every person who is unable to pay for vaccination, or every child whose parents or guardians

are unable to pay for the same, not residing in the city of Wilmington, may be vaccinated by any physician or physicians who may be designated for that purpose by the trustee of the poor for each hundred; and for each person or child so vaccinated, such physician or physicians shall be paid by the trustees of the poor for the county the sum of 50 cents. Every such physician shall give a certificate of vaccination to the child so applying.

1475. SEC. 31. *Physicians to vaccinate indigent persons, designation; fees.*—The trustees of the poor may designate physicians to vaccinate persons, not residing in the city of Wilmington, who are unable to pay for the same, and pay fees therefor, as provided by section 33 of chapter 25.

[Res. Bd. of H.]

Free vaccine and vaccination for indigent persons.—That hereafter the State board of health will furnish smallpox vaccine free to any physician upon request for indigent cases.

That any indigent person in the State of Delaware may be vaccinated at the expense of the State board of health by making personal application to any member of the State board of health, and such members are hereby authorized to arrange for the necessary medical attention, which shall not exceed \$1 per person vaccinated.

District of Columbia

[29 Stat. 640]

SEC. 23. *Vaccination of contacts required.*—That every person in said District having been exposed to the infection of smallpox (including varioloid) shall be at once successfully vaccinated, or vaccinated a sufficient number of times to make it evident that successful vaccination is impossible.

SEC. 24. *Compulsory vaccination of inhabitants.*—That it shall be the duty of every person in said District to be successfully vaccinated, or to be vaccinated a sufficient number of times to make it evident that successful vaccination is impossible, whenever the commissioners of said District shall, by proclamation, declare such action on the part of every person, within a reasonable time, to be stated in said proclamation, necessary for public health: *Provided*, That this section shall not apply to persons who prove to the satisfaction of said health officer that they have been successfully vaccinated, or repeatedly vaccinated as aforesaid, within five years from the date of said proclamation, or that they have had smallpox or varioloid.

SEC. 25. *Free vaccination.*—That the commissioners of said District be, and they are hereby, authorized and empowered, whenever said District is, in their judgment, threatened or afflicted with any contagious disease * * * to provide gratuitous vaccination * * *.

[Revised Statutes, D. C.]

SEC. 274. *Vaccination of pupils required.*—No child shall be admitted into the public schools who shall not have been duly vaccinated or otherwise protected against the smallpox.

[Rules of Bd. of Education]

[Ch. XIII] SEC. 3. *Vaccination of pupils.*—1. No pupil shall be admitted to any school or class who has not been duly vaccinated or otherwise protected against smallpox, * * *.

2. A certificate from the health officer of the District of Columbia, issued to the principal of the school building, may in any case be required of the parents or guardians of the pupil, certifying that such pupil has been successfully vaccinated or is otherwise protected from smallpox * * *.

3. After vaccination in the method approved by the health officer the pupil may attend school for 10 days, and upon the expiration of said 10 days such pupil shall furnish a certificate from a physician or the health officer that said vaccination has been successful or that the pupil has been revaccinated.

4. In case of such revaccination the pupil may again attend for a period of 10 days thereafter, when the further certificate provided for shall be presented.

5. When the health officer shall be satisfied from successful vaccination or otherwise that a pupil is immune from smallpox * * * and shall so certify, the pupil may be admitted.

Florida

[Instruction No. 19 of Bd. of H.]

Procedure recommended to prevent spread of smallpox.—In the presence of a case of smallpox, or of an epidemic of such, it is recommended:

* * * * *

4. Urge immediate vaccination of all other occupants of the premises and all persons who have been exposed. It is also proper to urge the vaccination of children in schools. It is not proper nor desirable to close schools on account of the presence of smallpox in the community.

5. It must be borne in mind that vaccination is not, under any circumstances, compulsory in Florida.

6. It should be impressed upon the public that vaccination is the only way to prevent smallpox and the only proper way to prevent spread of the disease, and that all other measures are more or less ineffective in its control and likely to create a false sense of security in the minds of persons unknowingly exposed.

7. Vaccine will be furnished free by the State board of health.

[Rule No. 52, Bd. of H.]

SEC. 3. Vaccination history in reporting smallpox.— * * *

(h) If the disease is, or is suspected to be, smallpox, the report [of a case] shall, in addition show * * * whether the patient has ever been successfully vaccinated, and if the patient has been successfully vaccinated, the number of times and dates or approximate dates of such vaccination.

* * * * *

SEC. 13. In reporting smallpox * * * be sure to state the number of times vaccinated and the dates of each vaccination as accurately as possible; if not able to give exact dates, give approximate dates.

Georgia

[1922 Supplement to Park's 1914 Annotated Code]

SEC. 1437 (1). Vaccination of pupils.—The county board of education in the counties of this State, and the boards of public education for the (city of Savannah and the other) cities of this State are hereby authorized and empowered to make such regulations as in their judgment shall seem requisite to insure the vaccination of the pupils in their respective schools and may require all scholars or pupils to be vaccinated as a prerequisite to admission to their respective schools.

[Park's Annotated Code, 1914, vol. 1]

[Sec. 1529 contains the same provisions as sec. 1437 (1) above.]

SEC. 1649. Procurement of vaccine.—The governor is authorized and required to procure the necessary quantity of genuine vaccine matter, either by purchase or manufacture, at such reasonable compensation as he may contract for, and have the same transmitted to the ordinaries of each county in this State for immediate use.

SEC. 1650. Compulsory vaccination authorized.—All county and municipal authorities shall be authorized and empowered to enact such rules, ordinances, or regulations to authorize the proper officials of said municipalities or county authorities to require, under penalty, all persons at the time located in said municipalities or counties to submit to vaccination, in the event the health officers or the proper authorities think it advisable, for the purpose of preventing the spread of smallpox or any other contagious or infectious disease within the State.

[Park's Annotated Code, 1914, vol. 6]

SEC. 494. Use of inoculation other than vaccination.—Any physician, surgeon, or other person, wilfully endeavoring to spread the smallpox, without inoculation, or by inoculation with matter of the smallpox, or using any other inoculation than that called vaccination, unless by special commission or authority from the court of ordinary of the county where the smallpox shall make its appearance, shall be guilty of a misdemeanor.

[Reg. Bd. of H.]

SEC. 2. Certain words and terms defined.—Certain words and terms, as used in these regulations, shall be held to have the following meanings:

* * * * *

9. "*Immunization*" shall be held to mean the production of acquired immunity through successful vaccination, inoculation, or serum treatment, according to the nature of the disease.

* * * * *

SEC. 13. Special measures for the control of communicable diseases.—The following rules are prescribed for the guidance of local health officers and other persons in the control of communicable diseases and they shall in general govern said health officers and other persons in the control of each disease in accordance with the provisions of the preceding regulations.

* * * * *

[SMALLPOX] 3. *Quarantine of nonimmune contacts* for 21 days from date of last exposure, or until protected by successful vaccination.

4. *Immunization*.—External inoculation with cowpox virus shall be offered to all nonimmune contacts.

* * * * *

7. *General measures*.—Education of the public in the need of vaccination, and enforcement of the law requiring vaccination of school children before they may be permitted to attend school.

[Court decisions]

(Georgia Supreme Court; *Morris v. City of Columbus*, 30 S. E. 850; 102 Ga. 792; 42 L.R.A. 175; 66 Am. St. Rep. 243; decided 1898.) An act conferring authority on a city to provide for compulsory vaccination was held to be a constitutional exercise of the police power by the legislature, and resolutions of the city council passed pursuant thereto were held warranted where the municipal authorities had reasonable grounds for apprehending that an epidemic of smallpox was imminent.

(Georgia Supreme Court; *Wyatt v. City of Rome*, 31 S. E. 188; 105 Ga. 312; 42 L.R.A. 180; 70 Am. St. Rep. 41; decided 1898.) There was held to be no liability on the part of a city in a suit against it based solely on the negligent manner in which the city, through its officers and agents, enforced an unchallenged ordinance requiring the citizens and residents of the city to submit to vaccination, for the reason that the city, when acting under the said ordinance, was exercising a governmental function. The suit concerned the administration of impure vaccine matter to a citizen by one of the city's agents.

(Georgia Supreme Court; *Daniel v. Putnam County*, 38 S. E. 980; 113 Ga. 570; 54 L.R.A. 292; decided 1901.) Counties were held to have no power to purchase smallpox vaccine.

(Georgia Supreme Court; *Barksdale v. Hayes*, 67 S. E. 852; 134 Ga. 348; decided 1910.) A county was held to be without authority to pay for medical services rendered in treating a case of smallpox and in vaccinating several persons, where it was not shown that any quarantine was in existence or that the services were rendered in connection therewith.

Hawaii

[Revised Laws, 1925]

SEC. 955. Vaccinating officers, appointment, salary, and removal.—The board of health shall appoint a suitable person to be vaccinating officer in each of the taxation divisions of the Territory, who shall receive such salary as may, from time to time, be appropriated by the legislature, and shall be removable from office at the pleasure of the board.

SEC. 956. Places for vaccination.—Each vaccinating officer shall appoint at least three convenient places in each school district throughout his division, for the performance of vaccination; and, from time to time, give public notice of the time when he will attend at such places, to vaccinate all persons not already successfully vaccinated who may then and there appear; and also of the time when he will attend at such place, to inspect the progress of such vaccination in the persons so vaccinated.

SEC. 957. Visits by vaccinating officers.—The vaccinating officers shall visit the several stations appointed by them, at least once in every six months, and oftener, if required so to do by the board of health.

SEC. 958. Record and report of transactions of vaccinating officers.—The several vaccinating officers shall keep a faithful record of their transactions, and make an annual report of the same to the board of health.

SEC. 959. Vaccination during infancy.—The father or mother of every child shall within six months after the birth of such child, or, in the event of the death, illness, or absence of the father or mother, then the guardian, nurse, or person having charge of such child, shall, within six months after its birth, or at the earliest opportunity after, take such child to the vaccinating officer for the purpose of being vaccinated.

SEC. 960. Examination of children for result of vaccination.—Upon the eighth day, following the day on which any child has been vaccinated, the father, mother, guardian, or other person having charge of the child, shall again take such child to the vaccinating officer, that he may ascertain by inspection the result of such operation.

SEC. 961. Certificates of successful vaccination of children.—If the vaccination is found to be successful, the officer shall deliver to the father, mother, or other person having charge of the child, free of charge, a certificate that the child has been successfully vaccinated, and shall note the same in a book to be kept by such officer for that purpose.

SEC. 962. Postponement of vaccination when child unfit.—On the presentation of any child to be vaccinated, should the officer deem the child to be in an unfit state to be vaccinated, he may postpone the operation at his discretion, and give due notice to the parents, or person having charge of such child, to reproduce the same for vaccination at a future time.

SEC. 963. Children may be vaccinated by whom; penalty against parent.—The vaccination of children required by law may be performed by the officers appointed for such purpose by the board of health, or by duly licensed physicians, at the option of the parents or guardians of such children. Every parent or guardian having the charge of any child who shall fail to cause such child to be properly and successfully vaccinated within the age prescribed by statute, shall be liable to a fine of \$5.

SEC. 964. Presence of parent at vaccination of child; physician only may vaccinate; what vaccine used; how vaccination done; penalty.—No child shall be vaccinated except after an opportunity has been given to the parent or guardian to be present at such vaccination, unless such parent or guardian shall have consented in writing to such vaccination, and then only by a duly licensed and authorized physician who shall use for such vaccination bovine virus only, obtained from standard manufacturers; such vaccination shall be only by means of scarifier and points put up in hermetically sealed tubes or other antiseptic receptacles; each receptacle shall be opened immediately before a scarifier or point is to be used, in the presence of the person to be vaccinated, and no scarifier or point shall be used for the vaccination of more than one person.

Any person violating any provision of this section shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine not to exceed \$500, or by imprisonment not to exceed one year, or by both such fine and imprisonment.

[Reg. Bd. of H.]

SEC. 126. Vaccination of public-school pupils by board of health physicians; report of unvaccinated pupils in private schools.— * * *

Physicians appointed by the board will visit each public school in their district as soon after the commencement of the annual school year as may be convenient for the purpose of * * * vaccinating the pupils of each public school. Notice of the time and place in and where such vaccinations will be performed will be published in some newspaper of general circulation in the district or county where such schools are situated.

Every private school throughout the Territory is required to furnish to the territorial board of health, within one month after the commencement of the annual school term, a certificate signed by some duly licensed and competent physician showing that all the pupils attending such private schools have been medically examined. This certificate shall also show * * * the names and addresses of all such pupils who have not been vaccinated.

Idaho

[Acts of 1921, ch. 102]

SECTION 1. Biologic products, keeping and sale.—It shall be the duty of any person, persons, firm, corporation, or other person, having for sale any biological products such as smallpox vaccine, diphtheria antitoxin, typhoid vaccine, antirabic vaccine, or any other sera used in the prevention or treatment of human ills, and which deteriorates with age, or when exposed to heat or light or freezing, to keep same stored in a proper container where the temperature shall be equalized at not more than 60° F., nor less than 50° F., and not exposed to the light: *Providing further,* That no such products as mentioned in this act shall be offered for sale or dispensed in any manner unless they are well within the date stamped on said package.

SEC. 2. Enforcement of act.—It shall be the duty of the department of public welfare to see that this act is complied with.

SEC. 3. Penalty.—Upon conviction of failure to comply with the provisions of this act, said person, persons, firm, or corporation shall be deemed guilty of a misdemeanor.

[Reg. Dept. of Public Welfare]

RULE 15. Period of isolation and quarantine in certain contagious diseases shall be as follows:

[Smallpox:]

[Quarantine of contacts:] 17 days from date of last exposure unless immune.

[Special precaution:] Successful vaccination for smallpox of all contacts. Antiseptic bath.

Illinois

[Cahill's Revised Statutes, 1925, ch. 24a]

PAR. 56. Vaccine, purchase; free distribution.—The department of public health shall have power: * * *

7. To purchase and distribute free of charge to citizens of the State * * * smallpox vaccine * * *

[Cahill's Revised Statutes, 1925, ch. 34]

PAR. 142. Free vaccination.—The said [county and township] boards of health shall have the following powers: * * *

Fourth. To provide gratuitous vaccination * * *

[Reg. Dept. of Public H.]

RULE 1. Definitions; methods of vaccination.—For the purpose of these rules the following shall be the accepted definitions used herein:

* * * * * * * * *

By "susceptible" or "nonimmune" is meant a person who is not known to have become immune to smallpox by natural or artificial process.

* * * * * * * * *

By "vaccination" is meant the inoculation of a person with the virus of cowpox for the purpose of communicating that disease as a prophylactic against smallpox and the test of its success is the appearance of the symptoms of the disease particularly those which manifest themselves upon the skin.

The methods of vaccination, approved by the Illinois department of public health, through the director of said department and his advisory board, are as follows:

The part should be prepared (preferably the left arm if the person is right handed) by thorough washing with soap and water, rubbing sufficiently to produce a slight surface redness, after which the part should be rinsed with water that has been boiled and then by alcohol.

If the subject be a male, scarify over the insertion of the deltoid; if a girl, higher up near the shoulder.

The lymph should be forced out of the tube upon the disinfected skin by means of a rubber bulb. It should never be blown out of the tube.

Never draw blood. Go only deep enough to penetrate the outer skin.

No matter what method is used, make a very small scarification. Do not cross-scratch. With a sterile needle a half dozen oblique punctures may be made into the skin through the fresh vaccine, or two superficial scratches, an eighth of an inch long, or the superficial skin may be broken by firm pressure and rotary motion with a sterile vaccination chisel. In any case the vaccine should be rubbed into the abraded skin. The vaccine should be rubbed in gently as vigorous rubbing adds to the trauma and resulting inflammation and the scab may be excessive.

After allowing the area to dry, a piece of sterile gauze, a clean soft handkerchief, or a soft cotton cloth (recently sterilized by boiling) is fastened to the shoulder of the undergarment in such a manner that it will hang down over the wound, thus preventing irritation from rubbing of the clothes.

The following well-known succession of events appearing ordinarily after a successful inoculation should be explained fully to patients or their family, who should be instructed to consult a physician in the event of untoward symptoms.

Within three to five days, according to the activity of the virus, vesicles appear at the edges of the scarification and an area of redness appears around it, which is attended by considerable itching. Patients should be especially cautioned never to scratch it or permit dirt of any kind to get into the wound.

About this time the glands under the arm may become slightly swollen and tender, and there may be slight fever and loss of appetite. About the tenth day the sore begins to dry with the formation of a scab a few days later.

They should be instructed to observe care not to injure the scab, but allow it to dry up and fall off spontaneously, after which it should be burned.

Upon the appearance of the typical vesicle and resulting sore a certificate of successful vaccination should be issued and never before.

* * * * *

RULE III. Vaccination history in reporting smallpox.—The written report of a known or suspected case of smallpox required by these rules, shall set forth at least the following information: * * * (8) number of times patient has been successfully vaccinated and approximate dates; * * *

RULE IV. Placarding; vaccination of nonimmune contacts.— * * *

In cases reported as "suspected smallpox," the placard may bear the word "Suspected" before the word "Smallpox" and all nonimmune contacts on premises should be vaccinated at once. * * *

RULE V. Quarantine.— * * *

Excepting as hereinafter provided, no one other than the attending physician and the local or State health authorities, or the duly authorized representatives of such authorities, and only when these are successfully vaccinated, shall enter or leave the quarantined premises until the warning cards have been removed and quarantine has been officially terminated. * * *

RULE VI. Quarantine or vaccination of contacts.—All persons who have been exposed to a case of smallpox shall be quarantined 20 days, unless immunity has been secured by virtue of a previous attack of smallpox or through successful vaccination within five years or through recent successful vaccination begun after exposure, provided in the last instance that the vaccinated contact can report or be seen daily for the first five days following the "successful take" by the health officer or his duly qualified representative.

Nonimmune, unvaccinated persons residing in a building quarantined on account of smallpox therein shall be held in quarantine until the last case on the premises has completely recovered and quarantine is terminated, and they shall further be kept in quarantine for 10 days longer or until 5 days after a "successful vaccination take" is obtained.

* * * * *

Likewise, any exposed person claiming immunity by reason of a successful vaccination within five years, or two or more unsuccessful attempts at vaccination within five years where there is a typical old scar, shall either submit to vaccination again or furnish certificate. Said certificate shall indicate date of vaccinations and revaccinations and shall be signed by the physician who performed such vaccinations and in addition such person shall exhibit a characteristic vaccinal scar or scars.

RULE VII. Quarantine of store or place of business.—Whenever a case of smallpox shall occur in living quarters connected with any store or place of business,

such store or place of business shall be quarantined until the case is terminated by removal, recovery, or death, and the store and living quarters have been disinfected under the supervision of the local health authority: *Provided, however,* That if the premises are so constructed that the part in which the case exists can be and is effectively sealed from the store or place of business under the supervision of the local health authority, and provided that the employees and all other persons connected with the store or place of business are successfully vaccinated and do not enter that part of the premises where the case exists and do not come in contact with the patient, attendant, or any article whatsoever from the quarantined premises, such store or place of business may be conducted as usual.

RULE VIII. Termination of quarantine.—Quarantine shall not be terminated until the following conditions exist:

(a) Upon disinfection of premises after death or the removal of the patient to a hospital, all nonimmunes in good health but not yet successfully vaccinated shall be held in quarantine as smallpox exposures for a period of 20 days after such death or removal, or at least until five days after a "successful take" has been secured. Immune members of the household may after disinfection of persons and clothing go about their usual business.

(b) When the last smallpox patient residing on the premises has been in quarantine for a minimum period of three weeks and when all scabs have disappeared and the skin is entirely clean, and the "seeds" have disappeared or have been removed from the palms of the hands and soles of the feet, and when all non-immune members of the household shall have been successfully vaccinated or placed under quarantine as contacts for an additional period of 10 days, or until five days after a successful take has been obtained, and none shall furthermore show evidence of illness, quarantine may be terminated.

* * * * *

RULE IX. Modified quarantine¹ of contacts or exposures.—Modified quarantine of smallpox contacts or exposures may be permitted in cities or public health districts employing a full time medical health officer and maintaining an efficient public health service subject to the following additional conditions:

(1) The medical health officer of such city or public health district shall make application in writing to and receive authority from the Illinois Department of Public Health to take advantage of the provisions of this section. Such authority shall be subject to revocation for cause any time at the discretion of the Illinois Department of Public Health.

(2) In making such application, the responsible local health authority shall recite the essential facts regarding the local health organization and the means at his disposal for properly enforcing the extraordinary requirements of modified quarantine, and he shall agree to strictly enforce such requirements, and assume responsibility for their proper enforcement and observance.

(3) The local health authority or his duly authorized agent shall agree to require the responsible head of the household to sign an agreement that he or she will be personally responsible for observance of the rules and instructions.

(4) The local health authority shall be responsible to the Illinois Department of Public Health for the proper observance of the restrictions of modified quarantine for smallpox contacts and exposure[s], and in case of the violation of these rules in any particular, shall immediately change the quarantine for contacts and exposures from the modified to the unmodified form and shall obtain the necessary evidence and institute measures for prosecution of person or persons responsible for the violation of the modified type of quarantine.

Where the conditions above set forth in Rule IX (1), (2), (3), (4) have been complied with and the patient is hospitalized or quarantined under conditions subject to satisfactory control by the local health officer, the quarantine of non-immune contacts or exposures may be modified as follows: Under this special modified regulation all contacts or exposures to a case of smallpox who can not

¹A modified type of quarantine for the patient is not permitted. We have at our command an effective, simple, and comparatively harmless method of control and prevention, namely, vaccination. This is the only practical method of control and prevention of smallpox which we know and can only be lawfully performed with calf vaccine made under license granted by the Hygienic Laboratory of the United States Public Health Service.

Individuals who fail to secure this means of protection for themselves and dependents are themselves, therefore, largely responsible for any consequences which may follow from an attack of the disease or exposure to one suffering from smallpox. A century and a quarter of successful use of this means of prevention and control of smallpox should convince all unprejudiced minds of its efficacy, comparative safety, and expediency.

comply with the conditions set forth under Rule VI, necessary for establishing the fact of immunity to smallpox by reason of successful vaccination or previous attack of smallpox, may be permitted their freedom upon vaccination and revaccination if necessary by the local health officer or his duly authorized representative, but must be seen daily or at least every other day by the local health officer or his qualified representative until five days after the vaccination or revaccination is successful or the maximum period of incubation (20 days) is passed. Furthermore, such privileged nonimmune contacts or exposures must not leave the health jurisdiction until five days after a "successful take" is obtained, and then only if temperature and other evidence of illness are absent and no evidence of an eruption is present.

* * * * *

RULE XI. Exclusion from the schools and places of public gathering.—All children who continue to reside on the quarantined premises must be excluded from the schools, Sunday schools, theaters, and other places of public gathering during the period of quarantine, and, if nonimmune, for 10 days longer, under the observation of a physician or health officer or his duly authorized agent, unless earlier rendered immune through successful vaccination. In the latter event the child may return to school in five days after a "successful take" is obtained.

Nonimmune children who have been exposed to smallpox and who do not reside on the quarantined premises must be excluded from the schools, Sunday schools, theaters, and other places of public gathering, for 20 days from date of last exposure, or until five days after a "successful take" is obtained.

Whenever smallpox shall appear in any part of the State in epidemic form the public, private, and parochial schools that may be involved shall be governed as follows:

It shall be the duty of the board of health, or its representative, and also the duty of the board of education, or its representative, to make a school survey as to the vaccinal status of all pupils, teachers, and other persons employed in or about a school building affected and all children, teachers, or other persons who can not comply with the following rule shall be excluded from school on official order of the board of education, by superintendent, principal, or their assistants or by any other representative of the responsible school authorities.

All children, all teachers, and all other persons employed in or about a school building who are not successfully externally vaccinated shall be excluded for a period of 20 days from the public, parochial, and private schools so involved, unless they present (a) a certificate of a practicing physician that they have recently been externally vaccinated on the cutaneous surface of the person with vaccine virus, or (b) a certificate from a practicing physician that they have been successfully externally vaccinated by the external application of vaccine virus to the cutaneous surface of the person with resultant sore and vaccinal scar formation within the past five years, or (c) a certificate that they have had smallpox.

If the recent vaccination mentioned under (a) above shall not "take," such person or child shall again be so externally vaccinated during said period of 20 days.

The following form of certificate is the one approved by the Illinois Department of Public Health:

I hereby certify that on the _____ day of _____, 19_____, I vaccinated _____, age _____, address _____, and that on the _____ day of _____, 19_____, I find a resulting sore, which in my opinion means a successful vaccination. _____ M. D.
Address _____

The approved methods of vaccination applicable to school children and others can be found under Rule I.

RULE XII. Duties of school authorities.—Whenever a known or suspected case of smallpox involves any pupil, teacher, or employee of any public, parochial, private, or other school, either as a case, contact, or exposure, it shall be the duty of the person or persons in charge of such school, immediately upon knowledge of this fact, to notify the local health authorities and to take or cause to be taken all such precautions as are necessary to prevent the spread of infection in the school.

In any such case it shall be the duty of the responsible school authority, officer, or teacher to cause an investigation to be made by persons competent to do so of all school pupils, teachers, and employees who may have been exposed to the infection and to promptly take such action as is necessary to

prevent contact between unvaccinated persons exposed to smallpox and other persons in the schools.

No pupil, teacher, or employee excluded from school on account of smallpox as a case, contact, or exposure, shall be permitted to reenter school except on presentation of a certificate stating that they have had smallpox or have been successfully vaccinated within five years or have been recently successfully vaccinated, issued or countersigned by the local health authority, or his duly authorized agent who may be the school physician if there is one. No such certificate shall be issued or countersigned by such authority or his agent until all the requirements of these rules and regulations have been strictly complied with.

Any pupil, teacher, or employee of any school not protected by successful vaccination who has been exposed to smallpox shall be excluded from such school building and premises for at least 20 days following date of removal or until five days after a successful take is obtained and may then be permitted to reenter school only on presentation of a certificate issued or countersigned by the local health authority, or his duly authorized agent.

* * * * *

RULE XVI. Deaths and burials.—* * *

All undertakers, embalmers, or other persons who work for undertaking firms, who come in contact with persons dead from smallpox, shall be quarantined 20 days as required by Rule VI relating to smallpox contacts and exposures, unless immunity has been secured by virtue of a previous attack of smallpox or through successful vaccination within five years or through successful vaccination begun after exposure, provided in the last instance that the vaccinated contact can report or be seen daily for the first five days following the "successful take" by the health officer or his duly qualified representative.

* * * * *

Public and church funerals are positively prohibited. Only successfully vaccinated persons whose attendance is necessary for the conduct of the funeral shall be permitted to enter the premises where the death occurred.

Any adult member of the immediate family who shall have been exposed to the disease prior to such funeral and whose clothing and person have first been disinfected, may attend the funeral, but must return to the quarantined premises immediately thereafter. Other persons, if successfully vaccinated, desiring to follow the remains to the grave may do so, provided that they do not enter the vehicles occupied by persons who have entered or come from such premises.

* * * * *

[Court decisions]

(Illinois Supreme Court; *Potts v. Breen*, 47 N. E. 81; 167 Ill. 67; 39 L. R. A. 152; 59 Am. St. Rep. 262; decided 1897.) Where there was no epidemic of smallpox prevailing or apprehended in the community and where the legislature had not authorized the requirement of vaccination, the State board of health was held to be without power to require that children be vaccinated before admission to the public schools.

(Illinois Supreme Court; *People ex rel. Lawbaugh v. Board of Education of District No. 2*, 52 N. E. 850; 177 Ill. 572; decided 1899.) The facts in this case were similar to those in *Potts v. Breen*, *supra*. However, an additional element in the case was that a city ordinance had been passed providing that the city board of health might, at any time, after consulting duly authorized officials, require vaccination as a prerequisite to school attendance, and under this the board of health had adopted a resolution prohibiting the attendance of unvaccinated pupils. The court adhered to the principles announced in *Potts v. Breen*, and also held that neither the city nor its board of health had power to require vaccination under the circumstances.

(Illinois Supreme Court; *People ex rel. Jenkins v. Board of Education of City of Chicago*, 84 N. E. 1046; 234 Ill. 422; 17 L. R. A. (N. S.) 709; 14 Am. Cas. 943; decided 1908.) The health commissioner of Chicago declared smallpox to be epidemic in a certain district and instructions were given by the health department to enforce a city ordinance requiring vaccination of children before admission to school. An unvaccinated child was denied admission to a school located in the district where smallpox was prevalent. The court held the ordinance null and void as being unreasonable.

(Illinois Supreme Court; *Hagler v. Larner*, 120 N. E. 575; 284 Ill. 547; decided 1918.) Where smallpox was epidemic in a city, a resolution of the local board of health, temporarily excluding from the public schools all unvaccinated children, was held reasonable.

(Illinois Supreme Court; *Burroughs v. Mortenson*, 143 N. E. 457; 312 Ill. 163; decided 1924.) There being no rule authorizing the commissioner of health of Chicago to direct that unvaccinated pupils be excluded from school and no rule authorizing school officers to exclude such pupils, it was held that an unvaccinated pupil, who was excluded from a certain school by school officials at the request of the health commissioner because of the existence of smallpox in two pupils attending the same school, was arbitrarily and unlawfully prevented from exercising his right to attend school.

Indiana

[Reg. Bd. of H.]

RULE 18. Smallpox quarantine.—In all cases where there has been an exposure or a suspected exposure to smallpox of any person or persons, it shall be the duty of the health officer under whose jurisdiction said person or persons may be temporarily or permanently residing, to quarantine or keep under observation for 14 days such person or persons as may be exposed or suspected of having been exposed to smallpox, and to advise vaccination or revaccination of all who may have been exposed. * * * If in the judgment of the health officer having jurisdiction it is deemed safe for an exposed person to be at liberty after vaccination and after disinfection in body and apparel, the said exposed person shall be given a certificate of health and not be placed in quarantine. * * *

RULE 23. In case of smallpox, all persons reasonably suspected of having been exposed thereto, shall be removed from such railway car, steamboat, vessel, or other conveyance * * * and, if not previously successfully vaccinated, held in quarantine until such time as the State health commissioner or health officer having jurisdiction shall deem release safe to the public. * * *

RULE 29. Period of quarantine and exclusion from school; vaccination of contacts.—The minimum period of isolation, quarantine, and exclusion from school in contagious diseases recommended by the State board of health, shall be as follows:

Smallpox.—* * * For exposed persons, quarantine or supervision for 14 days from date of last exposure unless successfully vaccinated or protected by a previous attack of the disease, and person and clothing having been disinfected: *Provided*, That persons who have not been previously vaccinated and who shall submit to vaccination may be released from quarantine after disinfection of person and clothing when it has been shown that such vaccination is successful. * * *

[Court decisions]

(Indiana Supreme Court; *City of Fort Wayne v. Rosenthal*, 75 Ind. 156; 39 Am. Rep. 127; decided 1881.) No liability for services rendered was imposed on a city where the city board of health employed one of its own members to vaccinate indigent pupils.

(Indiana Supreme Court; *Blue v. Beach*, 56 N. E. 89; 155 Ind. 121; 50 L. R. A. 64; 80 Am. St. Rep. 195; decided 1900.) It was held to be a valid exercise of power on the part of a local board of health to order the temporary exclusion of unvaccinated persons from the public schools where there was a reasonable apprehension that smallpox would become prevalent in the city.

(Indiana Supreme Court; *State ex rel. Horne v. Beil*, 60 N. E. 672; 157 Ind. 25; decided 1901.) There being a threatened epidemic of smallpox, city school trustees were compelled by mandamus to enforce a rule of the county and city boards of health requiring vaccination of children before admission to school.

Iowa

[Code, 1924]

2191. Vaccine, distribution and labeling.—The commissioner of public health shall be the head of the "State department of health," which shall: * * *

11. Establish stations throughout the State for the distribution of * * * vaccines to physicians, druggists, and other persons, at cost. All * * *

vaccine thus distributed shall be labeled "Iowa State Department of Health."

2220. *Vaccine, advice relative to.*—The State board of health * * * shall have the following powers and duties: * * *

2. To advise the department relative to: * * *

d. * * * vaccines * * *

6816. *Exclusion of unvaccinated persons from schools, churches, theaters, etc., when smallpox is prevalent.*—* * * and when smallpox is prevalent in said city [a city under special charter] or its vicinity, the said [city] board of health may, with the consent of the council, by notice served upon the teachers or persons in charge of any of the public or private schools, prohibit the admission therein of any pupil until such pupil shall have proved, to the satisfaction of the board or the persons selected by it for that purpose, that such pupils have been vaccinated within five years prior thereto, or within such time as the board may designate; and said board may in like manner prevent the admission of persons not furnishing satisfactory proof of vaccination into churches, theaters, or other buildings by notifying the persons in charge thereof not to admit such persons.

[Reg. Dept. of H.]

SEC. IV, 6. *Immunity.*—For the purpose of these rules and regulations persons may be regarded as immune to a disease under the following conditions:

B. *To smallpox*—

(a) By having had the disease at some previous time and having fully recovered and this fact has been made a matter of record with the local board of health at the time of the illness.

(b) By successful vaccination with cowpox virus, not more than five years having elapsed since the vaccination.

SEC. IV, 9. *Vaccination defined.*—Vaccination for the prevention of smallpox signifies an inoculation by incision, puncture, or scarification of a vaccine which produces with some constitutional disturbance, the typical vaccine vesicle, and which leaves, after the pock has healed, a characteristic scar.

SMALLPOX. * * * *Release of persons before termination of quarantine.*—* * * (2) Adults not ill with the disease may be instructed, disinfected, and released to live elsewhere, provided they have been successfully vaccinated within the past five years and that evidence of the same is deemed sufficient by the local board of health.

(3) School children known to be immune. Children of school age or less than school age who have been successfully vaccinated within the past five years and evidence of the same is deemed sufficient by the local board of health, may be instructed, disinfected, and released to live elsewhere, and may then return to school.

(4) Children and adults not known to be immune may be released from a quarantine for smallpox 12 days after a successful vaccination, provided they have been instructed, disinfected, and released to live elsewhere, and may then return to school.

[Court decision]

(Iowa Supreme Court; *Tones v. Independent School District of Des Moines, 180 N. W. 157; 190 Iowa 244; decided 1920.*) A city ordinance, which made it unlawful to admit unvaccinated pupils to school, was held invalid because its subject was not clearly expressed in its title as required by law.

Kansas

[Revised Statutes, 1923]

65-119. *General vaccination.*—* * * In case of smallpox [should the disease show a tendency to become epidemic] a general and thorough vaccination should be recommended and insisted upon [by the local health authorities].

[Reg. Bd. of H.]

RULE 1. *Vaccination history in reporting smallpox.*—* * *

(b) * * *

Provided, That if the disease is, or is suspected to be smallpox, the report [of

the case by a physician or other practitioner of the healing art] shall * * * show * * * whether the patient has ever been successfully vaccinated, and if the patient has been successfully vaccinated the number of times and dates or approximate dates of such vaccination; * * *

RULE 25. Smallpox.—* * *

(b) *Contacts, vaccination or quarantine.*—No person who has not had smallpox and who by reason of contact with a patient afflicted with smallpox is thereby exposed to the disease, shall be permitted to appear on the public streets or highways or in any public place, or attend any place of public amusement or worship, or visit any other private house, for a period of 21 days after such exposure: *Provided*, That if such exposed person shall undergo vaccination, the above restrictions shall apply only until such time as vaccination shall prove successful; *Provided, further*, That these restrictions shall not apply to persons who shall present evidence of a successful vaccination within seven years previous. The local city or county health officer in whose jurisdiction the case occurs shall determine as to what constitutes exposure and successful vaccination in each individual case.

(c) *Exclusion of unvaccinated persons from school when smallpox is present.*—To prevent the spread of smallpox, the local board of health or health officer of any city or county where the disease is present in any school district or part thereof which is included in such city or county, shall, with the advice and consent of the State board of health (or its executive officer), prohibit the attendance at school in any such district or part thereof for a period of 25 days, after the appearance of smallpox, of any and all pupils and teachers who have not been successfully vaccinated.

Should new cases of smallpox continue to develop in such school district or part thereof, after the expiration of 25 days, the local board of health or health officer shall, upon the advice and consent of the State board of health (or its executive officer), renew such order for another period of 25 days or so many days thereof as the State board of health (or its executive officer) may deem necessary in order to control the epidemic.

* * * * *

[Court decision]

(Kansas Supreme Court; *Osborn v. Russell*, 68 P. 60; 64 Kans. 507; decided 1902.) The State board of health had no power or authority to adopt a regulation that no person should be admitted into public or private schools until after being successfully vaccinated, and a city board of education could not exclude a child from school because unvaccinated where no smallpox existed in the city or county.

Kentucky

[Carroll's Statutes, 1922]

SEC. 2052. Vaccine for free vaccination of poor.—* * * he [the secretary of the State board of health] * * * shall supply, on demand, to local boards of health reliable vaccine virus for the gratuitous vaccination of the poor.

SEC. 2054a-12. Vaccine, keeping and furnishing by county health officers; vaccinations by county health authorities.—* * * The [county] health officer shall also keep properly safeguarded a supply of fresh smallpox virus, typhoid vaccine for the prevention of typhoid fever, for free distribution and use for the citizens of the county, and a supply of fresh diphtheria antitoxin, which shall be sold at wholesale cost for use upon any citizen of the county; and where any person unable to purchase them within the county is found suffering from diphtheria or has been exposed to smallpox or typhoid fever, it shall be the duty of the county board of health to furnish free such diphtheria antitoxin, smallpox virus, or typhoid vaccine as may be needed to protect the health and lives of the people of the county, and it shall be the duty of the health officer or assistant to administer promptly these curative and preventive agents.

SEC. 4608. Vaccination of certain adults.—All persons of the age of 21 years and over, who have not been vaccinated, or, if vaccinated, not successfully, shall, within three months after this revision takes effect, procure their own vaccination or revaccination, as the case may be.

SEC. 4609. Vaccination of children.—All parents, guardians, and other persons having the care, custody, or control of any child or children, or who may have in

their employ any minor or minors, shall have the same vaccinated; and every parent, guardian, and person that may have the care, custody, or control of any child born hereafter, shall have said child vaccinated within 12 months after its birth or after it comes under his or her care, custody, or control.

Sec. 4610. Vaccination of persons coming into State to live.—All persons coming into this State to abide or become citizens who have not been vaccinated, or who may have children under their care or control that have not been vaccinated, shall procure the vaccination of themselves and said children within six months after coming into the State.

Sec. 4611. Authority of cities and towns relative to vaccination.—The city council of every city and the board of trustees of every town in the State are invested with full power and authority to make such ordinances, rules, and regulations, with fines and penalties attached as will secure the vaccination of all the inhabitants of said cities and towns, and provide the necessary means to pay for the vaccination of all paupers and destitute persons in same.

Sec. 4612. Vaccination of inmates of institutions.—The superintendents of the charitable institutions of the State shall have all the inmates of said institutions vaccinated. The keeper of the penitentiary shall have all the convicts in same vaccinated.

Sec. 4613. Pure vaccine matter to be used.—All vaccinations performed under this article shall be with pure vaccine matter.

Sec. 4614. Free vaccination in counties.—That it shall be the duty of the judge of the county court of each county whenever, in his opinion, the necessity for such action exists, to call his court together, and said court shall have power to give to some practicing physician or physicians of the county written authority to vaccinate all persons in the county who are unable to procure vaccination. The physician so appointed shall furnish to the judge of said court a true list, under oath, of the persons vaccinated by him, with the charges thereof, which shall not exceed twenty-five cents for each successful vaccination; and the judge shall report the same to the court of claims for his county, and the court shall order the charges to be paid out of the county levy.

[Reg. Bd. of H., May 12, 1919]

RULE 20. How to obtain free antitoxins and vaccines.—Whenever any legally registered physician practicing in any county or city shall certify to the local health officer having jurisdiction that any indigent person or any other person in whom disease endangers the public health in, or residing within its jurisdiction is suffering from any contagious and infectious disease which requires antitoxin or vaccine for its treatment such as diphtheria, or has been exposed thereto or is in imminent danger of contracting it, thereby endangering the health and lives of the people of county or city, the health officer shall, with the approval of the county judge or mayor, provide and furnish such person or persons with diphtheria or other antitoxin or vaccine at the expense of the county or city in such amount as may be deemed necessary by the health officer.

RULE 41. Isolation or removal in smallpox; vaccination or quarantine of contacts.* * * Every inmate of the household where such [smallpox] case occurs and every person who has had contact with such case or with his secretions or excretions shall be either vaccinated within three days of his first exposure to the disease or placed under quarantine, and when vaccinated, the name and address of such inmate or other person shall be taken and such inmate or other person shall be kept under daily observation. Such observation shall continue until successful vaccination results, or for at least 20 days. If such inmate or other person refuse to be vaccinated, he shall be quarantined until discharged by the local health officer.

If there is no isolation hospital available, the patient shall be isolated and every inmate of the household shall be vaccinated or strictly quarantined until discharged by the local health officer.

Whenever a case of smallpox occurs in his jurisdiction, it shall be the duty of the local health officer to use all diligence in securing the names and addresses of all persons who have had contact with such case, and in causing such persons to be either vaccinated or placed under quarantine.

RULE 42. Free vaccination of indigent persons.—It shall be the duty of the board of health of every county or municipality to provide, at public expense, free vaccination for all indigent persons in need of the same.

RULE 74. Vaccination during infancy; revaccination.—Every child shall be vaccinated before it becomes one year of age, and this board recommends that all persons be revaccinated as often as once in seven years.

RULE 75. *Employment of unvaccinated persons.*—All corporations, partnerships, companies, or persons within the jurisdiction of this board shall require each employee for any kind of service to be vaccinated previous to employment, unless proof is furnished of successful vaccination within seven years or that the employee has had smallpox, and anyone employing a person in violation of this rule shall be guilty of a separate offense for each day that such employee shall be sick with smallpox, and liable for the cost of his maintenance. Every person in Kentucky is required by law to be vaccinated. (Sec. 4608, Ky. Stats.) This rule is to provide that no one violating the statute shall be employed.

RULE 76. *Unvaccinated persons excluded from schools.*—No person shall become a member of any public or private school within the jurisdiction of this board, as teacher or scholar, without furnishing a certificate from some reputable physician that he or she has been successfully vaccinated and has been revaccinated at least once each seven years.

RULE 77. *How vaccination should be done.*—Vaccination, a very important procedure, should be done by a competent physician with the cleanliness and septic precautions observed in all surgical operations at three points an inch and a half apart on a clean arm, should dry for 30 minutes, and be left open. No so-called shields of any kind should ever be put on.

[Reg. Bd. of H., Oct. 18, 1926]

Vaccine, etc., keeping at certain temperature.—All vaccines, virus, and serums recognized as official by the tenth edition of the United States Pharmacopeia shall be kept until used at a temperature between 4.5° C. and 20° C., preferably at the lower limit as indicated in the United States Pharmacopeia, tenth edition (approximately 40° F. to 68° F.). Vaccine virus shall be stored at the lower limit.

Marking of vaccine, etc., not kept at certain temperature.—All vaccines, virus, and serums official in the United States Pharmacopeia, tenth edition, found on inspection to be kept at a higher temperature than that required in the Pharmacopeia, tenth edition, shall be deemed to be adulterated and unfit for usage and shall be stamped or marked plainly on the label by an authorized drug inspector with the words "Not stored at required temperature," together with the date of inspection and the initials of the inspector.

[Court decisions]

(Kentucky Court of Appeals; Board of Trustees of Highland Park Graded Common School District No. 46 v. McMurtry, 184 S. W. 390; 169 Ky. 457; decided 1916.) The State board of health and a county board of health were each held to have power to require vaccination as a condition of attendance at public school where there was reasonable apprehension of a smallpox epidemic.

(Kentucky Court of Appeals; Hill v. Bickers, 188 S. W. 766; 171 Ky. 703; decided 1916.) The holding is the same as in the McMurtry case, *supra*.

Louisiana

[Acts of 1921, No. 79]

SEC. 6. Facilities for vaccination.—* * * it [the State sanitary code adopted by the State board of health] shall provide for affording facilities for vaccination; * * *

[Reg. Bd. of H.]

ART. 20. Smallpox.—* * *

(b) *Exclusion of unvaccinated children from school when smallpox prevails.*—Whenever smallpox prevails in any parish or municipality of the State and the majority of the board of health of said parish or municipality has recommended vaccination of school children, all pupils attending public schools in said parish or municipality shall be vaccinated and it shall be the duty of the superintendent of schools of said parish to refuse admission to the public schools of the parish or municipality of any pupil who does not present from a reputable physician a certificate of successful vaccination within the preceding five years or of two unsuccessful attempts to vaccinate within the preceding year.

(c) *Contacts, vaccination or quarantine.*—When a case of smallpox is reported to a health officer as occurring within his jurisdiction it shall at once be his duty to vaccinate all persons who have come in contact with the case, or who in his

opinion may have come in contact with the case: *Provided*, That any such person who refuses to be vaccinated shall be isolated and kept in isolation for not less than two weeks after the date of last exposure.

(d) *Same*.—When a case of smallpox occurs among the employees of a store, factory, mill, camp, farm, railroad, boat, or other place employing people, or among the inmates of any institution, such as a home, asylum, boarding school, etc., all the persons in such store, factory, mill, institution, or place shall be regarded as contacts and shall be vaccinated, as provided in paragraph (b) [c?] of this section.

ART. 243. * * *

(g) *Vaccination prerequisite to school attendance when smallpox is prevalent; satisfactory vaccination certificate*.—* * * In any parish in which smallpox has been declared by the State or parish board of health to be prevalent, and in which the vaccination of school children has been recommended by a majority of the parish board of health, no person shall attend, nor be entered as a pupil of, any public school without furnishing the principal of said school a satisfactory vaccination certificate as herein defined. To be satisfactory a vaccination certificate must state date of last vaccination, must be signed by a registered physician of Louisiana, and must state either that the pupil has been successfully vaccinated within five years prior to the date of certificate or that the pupil has been twice vaccinated unsuccessfully within one year prior to the date of certificate. No certificate of successful vaccination shall be satisfactory after five years from date of vaccination. No certificate of unsuccessful vaccination shall be satisfactory after one year from date of vaccination.

Maine

[Revised Statutes, 1916, ch. 16]

SEC. 38 [as amended by ch. 41, acts of 1921]. *Exclusion of unvaccinated persons from school*.—Superintending school committees shall perform the following duties:

* * * * * * * * *
V. Exclude, if they deem it expedient, any person not vaccinated, although otherwise entitled to admission, unless a parent or guardian of such person shall present a signed statement that such parent or guardian is opposed to vaccination, in which event such person may only be excluded in the event of an epidemic of smallpox.

[Revised Statutes, 1916, ch. 19]

SEC. 101. *Free vaccination*.—The board of health of each city, village, town, and plantation shall annually on the 1st day of March, or oftener, if they deem it prudent, provide for the free vaccination with the cowpox, of all the inhabitants within their respective localities, to be done under the care of skilled practicing physicians, and under such circumstances and restrictions as said authorities adopt therefor.

SEC. 102. *Employment of unvaccinated persons in certain paper mills prohibited*.—No owner, agent, or superintendent of any paper mill where domestic or foreign rags are used in the manufacturing of paper shall hire or admit any person to work in or about said mill who has not been successfully vaccinated or revaccinated within two years, or to the satisfaction of the local board of health.

SEC. 103. *Unlawful for unvaccinated person to work in certain paper mills*.—No person shall work in or about any paper mill where rags are used, who has not been successfully vaccinated or revaccinated within two years, or to the satisfaction of the local board of health.

SEC. 104. *Reports by certain paper mills concerning employees*.—The owner, agent, and superintendent in every paper mill where rags are used shall every year, in the months of February and September, make out and deliver to the local board of health, a list containing the names, ages, kind of work, and places of residence of all persons employed in or about said mill.

SEC. 105. *Periodic examination of paper mill employees as to vaccination*.—In the months of March and October, annually, each and every person who is employed in a paper mill shall be examined by the local board of health as to whether he or she is successfully and sufficiently protected by vaccination, and the local board of health shall in all cases be the judges of the sufficiency of the protection by vaccination.

SEC. 106. Penalty.—Whoever violates any provision of the four preceding sections shall be punished by a fine of not more than \$50.

SEC. 107. Enforcement of law; prosecutions.—The local boards of health within their respective jurisdictions and the State board of health shall enforce sections 102 to 106, each inclusive, as far as comes within their power, and when said State board of health knows or has reason to believe that any penalty or forfeiture has been incurred by reason of neglect to comply with said sections, it shall give notice thereof, in writing, to the county attorney of the county in which said penalty or forfeiture has occurred, and upon receipt of such notice the county attorney shall prosecute the defaulting person or persons.

[Reg. Dept. of H.]

RULE 26. * * *

SMALLPOX. Quarantine; vaccination of contacts.—* * *

Wage earners who have been successfully vaccinated may be revaccinated, be disinfected, and residing elsewhere, may continue their work if they are permanent residents of the place and there appears to the health officer to be no reason to do otherwise with them.

Other exposed persons, including transients, who have been successfully vaccinated may be revaccinated, disinfected, and kept under observation 16 days; but these two classes should be required to report so that they may be seen every day, so that there may be an assurance that they remain well.

Persons who have never had a successful vaccination should be vaccinated. If the vaccination is successful and if the vaccination was done within three days after first exposure, they may attend to their work, but remaining under observation for 16 days from their last exposure. If the vaccination was done later than three days after their first exposure, they should remain isolated 16 days from their last exposure.

School attendance.—Children from infected households shall be barred from school for two weeks after the family has been released from quarantine or two weeks after a successful vaccination.

Maryland

[Annotated Code, 1924, art. 43]

37. Vaccine, testing.—* * * The services of the said bureau [of bacteriology of the State board of health] shall be free * * * to the vaccine agent for testing vaccine virus * * *.

67. Vaccine, keeping.—The State board of health shall keep on hand, at all times, a supply of fresh and pure vaccine virus, if practicable, not more than four removes from the cow, for the use of the physicians residing and practicing medicine and surgery in this State.

68. Vaccine, keeping, procuring, and furnishing.—The State board of health shall keep on hand, and procure as often as may be necessary, pure vaccine virus, and furnish such virus to the physicians of the State, gratuitously, when called for; said board shall keep a record of the name and location of each physician so furnished with virus, together with the quantities, qualities, and number of times, and shall advertise once a month in one or more of the newspapers published in the city of Baltimore, and once during the year (three insertions) in one paper of each county.

69. Vaccination of indigent children; vaccine physicians.—For every child vaccinated, whose guardian or parents are too poor to pay for the service, the county commissioners of the several counties, or the mayor and city council of Baltimore, as the case may be, shall pay, or cause to be paid, to the physician performing the service, the sum of 50 cents for every such case, on presentation of such account, duly authenticated by an affidavit setting forth that the service was duly performed and that the parents or guardians are unable to pay for said service: *Provided*, That in the counties, or in the city of Baltimore, where vaccine physicians are appointed by the proper authorities to vaccinate all persons who may apply, the county commissioners of such counties and the mayor and city council of Baltimore shall be, respectively, freed from the payment of fees to other physicians for vaccinating those unable to pay; and the county commissioners are hereby authorized and empowered to make contracts with and designate such vaccine physicians as they deem necessary.

70. *Duty of physicians to vaccinate; penalty.*—It shall be the duty of every practicing physician in this State to vaccinate all children in the circle of his practice which may be presented to him for vaccination within one year after birth if such child shall be in proper condition for such service; and he shall vaccinate all other persons not previously effectually vaccinated who shall request such service from him. Any physician neglecting or refusing so to do shall, on conviction thereof, forfeit and pay for every offense a penalty of \$5.

71. *Unlawful use of defective virus; penalty.*—Any physician who shall knowingly and willfully use any virus defective in its nature, by having passed through a scrofulous system, from having been taken from one laboring under any disease of the skin, chronic sore, or other febrile, or other disease, during the progress of the vaccine disease, or any crust which, during the progress of said vaccine disease, was punctured, or had sustained other injury, shall, upon conviction thereof, forfeit and pay a sum not less than \$100 nor more than \$500 for each offense.

72. *Vaccination during infancy; duty of parent or guardian; penalty.*—It shall be the duty of every parent and guardian to have his or her child vaccinated within 12 months after its birth, if it shall be in proper condition, or as soon thereafter as practicable; and if such parent or guardian shall have any other person under his or her control or care, not duly vaccinated, he or she shall cause such person to be vaccinated prior to the 1st day of November of each year. Any person failing to comply with the provisions of this section shall, on conviction thereof, forfeit and pay a sum not less than \$5 nor more than \$10 for each offense.

73. *Vaccination of pupils required; free vaccination of pupils; penalty.*—No teacher in any of the public schools of this State shall receive into such school as a pupil any person who has not been successfully vaccinated; and it shall be the duty of all teachers in the public schools, within 10 days after the beginning of the fall term of said schools, and thereafter as new pupils shall enter such school, to ascertain and enroll on the vaccine register of said school the names of those pupils who may produce a certificate of a regular practicing physician of the county or city, as the case may be, certifying that the pupil has been successfully vaccinated, and also the names of those pupils who have been enrolled at any previous term in any school of the county or in the city of Baltimore, as the case may be, as successfully vaccinated pupils, whenever any such pupil shall present a certificate of such enrollment from the teacher of any such school. If any person shall apply for admission as a pupil in any of the public schools of this State who has not been successfully vaccinated, the teacher shall give the parents or guardian or other person having control of such pupil an order directed to any physician in the county or city, as the case may be, and requiring any regular physician to whom it may be presented to vaccinate such pupil and return a certificate of such vaccination when successful to the teacher giving such order. The county commissioners of the several counties and the mayor and city council of Baltimore City, as the case may be, shall pay, or cause to be paid, to the physician performing the service on such order the sum of 50 cents for every such successful vaccination on the presentation of the order and certification of the teacher that such vaccination has been performed: *Provided*, That in the counties or in the city of Baltimore, when vaccine physicians are appointed or contracts made with certain physicians by the proper authorities for the vaccination of all children or persons who may apply free of charge to the person applying, the provisions of this section providing for the payment of physicians' certified orders of teachers shall not apply. Any teacher neglecting or refusing to comply with the provisions of this section shall, on conviction thereof before any justice of the peace having jurisdiction over said offense, be fined \$10 for each and every offense. And no public-school trustee or commissioner shall grant any permit to any person who has not been successfully vaccinated to enter as a pupil any public school under the same penalty.

74. *Recovery of fines.*—All fines imposed under the provisions of the four preceding sections shall be recovered before a justice of the peace, in the same manner as small debts are recoverable, for the use of the school fund of the county or city in which such offense shall occur.

75. *Vaccine, duties of State board of health regarding.*—The State board of health is hereby required to take all steps necessary to reproduce from the cow true vaccine virus for the use of physicians residing and practicing medicine and surgery in the State, and shall furnish none more than four removes from the cow, if practicable, and none that has not been produced under its own supervision and direction: *Provided*, That said board may take, use, and furnish such virus furnished to it by any physician intrusted by it to procure the same, such virus not to be

taken from the arm of a child less than three months old; and the said board shall report annually to the governor the particular of its expenditures and other matters connected with the duties imposed by this and the eight preceding sections.

80. Vaccine, testing.—* * * The services of the bacteriologist of the State board of health shall be free * * * to the State vaccine agent for testing vaccine virus * * *.

[Annotated Code, 1924, art. 77]

117. Vaccination of pupils required.—Every child before being admitted to any public school shall produce a certificate from a regular physician that he has been properly vaccinated.

[Reg. Bd. of H.]

C. D. No. 8. *Pupils, teachers, etc., examination as to vaccination.*—All duly appointed and certified health officers are authorized and empowered to make such physical examinations of pupils, teachers, and other persons attending, or employed in, the public schools whenever such examination is in the judgment of such health officers necessary * * * for the purpose of determining whether such persons are properly vaccinated or otherwise immune to smallpox * * *.

C. D. No. 22. Incubation periods; smallpox contacts.—For the purpose of these rules and regulations, the accepted periods of incubation of certain communicable diseases are hereby declared to be as follows (see note 1), and shall be observed by health officers in controlling contacts and cases of suspected communicable diseases, except where otherwise specified:

Smallpox----- 21 days.

NOTE 3.—Smallpox contacts must be held under close observation for the full period of incubation unless there is good evidence and history of successful vaccination within five years. Contacts vaccinated subsequent to exposure shall be held under observation until a successful vaccination is obtained, or until the expiration of the incubation period. Suspicious cases should be held under strict isolation until a diagnosis is made.

C. D. No. 33. *Vaccination of pupils required.*—No teacher in any of the public schools of this State shall receive into such school as a pupil any person who has not been successfully vaccinated against smallpox.

[Court decision]

(Maryland Court of Appeals; County Commissioners of Allegany County v. McClintock, 60 Md. 559; decided 1883.) A physician was held entitled to recover from a county fees for vaccinating a certain number of children whose parents were too poor to pay for the same. A State law provided for the payment by the county of such fees in the case of poor persons, and also made it the duty of a physician to vaccinate children presented to him for vaccination. The defense was that the children were vaccinated at the request of the physician and not at the request of the parents or guardians, but the court held that this defense was not good.

Massachusetts

[General Laws, ch. 76]

SEC. 15. Vaccination of pupils required.—An unvaccinated child shall not be admitted to a public school except upon presentation of a certificate like the physician's certificate required by section 183 of chapter 111. * * *

[General Laws, ch. 111]

SEC. 5 [as amended by ch. 322, acts of 1921]. Vaccine, powers of State department of public health regarding.—It [the State department of public health] shall have oversight of vaccine institutions; and may, for the use of the people of the Commonwealth, produce and distribute vaccine lymph; and may sell, under such rules, regulations, or restrictions as the council may establish, such amounts of the various biologic products

prepared or manufactured in the laboratories of the department, as constitute an excess over the amounts required for the diagnosis, prevention and treatment of infectious diseases within the Commonwealth. * * *

SEC. 181. Compulsory vaccination; free vaccination; penalty.—Boards of health, if in their opinion it is necessary for public health or safety, shall require and enforce the vaccination and revaccination of all the inhabitants of their towns, and shall provide them with the means of free vaccination. Whoever refuses or neglects to comply with such requirement shall forfeit \$5.

SEC. 182. Vaccination of certain persons may be required.—The board of health of a town where any incorporated manufacturing company, almshouse, reform or industrial school, hospital or other establishment where the poor or sick are received, prison, jail or house of correction, or any institution supported or aided by the Commonwealth is situated may, if it decides that it is necessary for the health of the inmates or for the public safety, require the authorities of said establishment or institution, at the expense thereof, to cause all said inmates to be vaccinated.

SEC. 183. Exceptions to vaccination requirement.—Any person over 21 presenting a certificate, signed by the register of a probate court, that he is under guardianship shall not be subject to section 181; and any child presenting a certificate, signed by a registered physician designated by the parent or guardian, that the physician has at the time of giving the certificate personally examined the child and that he is of the opinion that the physical condition of the child is such that his health will be endangered by vaccination, shall not, while such condition continues, be subject to the two preceding sections.

[Court decisions]

(Massachusetts Supreme Judicial Court; *O'Brien v. Cunard S. S. Co. Limited*, 28 N. E. 266; 154 Mass. 272; 13 L. R. A. 329; decided 1891.) A steamship company was held not liable in an action for damages involving the vaccination of a passenger on shipboard by a ship's surgeon. The court held that there was no assault committed in the act of vaccination when the surgeon's conduct was viewed in the light of the surrounding circumstances, and also held that the company was not liable for any alleged negligence on the part of the surgeon in performing the vaccination.

(Massachusetts Supreme Judicial Court; *Commonwealth v. Pear*, *Commonwealth v. Jacobson*, 66 N. E. 719; 183 Mass. 242; 67 L. R. A. 935; *Commonwealth v. Mugford*, 66 N. E. 1120; 183 Mass. 249.) For holding, see *Jacobson v. Commonwealth of Massachusetts* abstracted under United States.

(Massachusetts Supreme Judicial Court; *Hammond v. Town of Hyde Park*, 80 N. E. 650; 195 Mass. 29; decided 1907.) Where smallpox was prevalent in a town, a regulation of the town school committee, excluding temporarily from the schools unvaccinated pupils, was upheld, notwithstanding the fact that certain excluded unvaccinated pupils had presented certificates of unfitness for vaccination under a State statute which required the vaccination of pupils before admission to public schools but which exempted from the requirement a child who presented a physician's certificate that such child was not a fit subject for vaccination.

(Massachusetts Supreme Judicial Court; *Spofford v. Carlton*, 131 N. E. 314; 238 Mass. 528; decided 1921.) A state law required the vaccination of children before admission to the public schools, but made an exception in the case of a child who presented a physician's certificate that such child was an unfit subject for vaccination. A regulation of a city school committee required that such physician's certificate be renewed every two months. This requirement of periodic renewal was upheld.

Michigan

[Compiled Laws, 1916]

5086. Townships may provide for vaccination of inhabitants.—Every township may, at any meeting, make suitable provision for the inoculation of the inhabitants thereof with the cowpox, under the direction of the board of health or the health officer of the township, and they shall raise all necessary sums of money to defray the expenses of such inoculation, in the same manner that other township charges are defrayed.

5091. Contacts, vaccination or isolation.—That whenever the health officer of any township, city, or village in this State shall receive reliable notice or shall

otherwise have good reason to believe that there is within the township, city, or village of which he is the health officer a case of smallpox, * * * it shall be the duty of said health officer, unless he is or shall have been instructed by the board of health of which he is an executive officer to do otherwise, * * * to order the prompt vaccination or isolation of persons who have been exposed to smallpox; * * *

5096. Free vaccination.—That the board of health of each city, village, and township may at any time direct its health officer or health physician to offer vaccination or inoculation, with bovine vaccine virus * * * to every child and to all other persons, without cost to the person vaccinated or inoculated, but at the expense of such city, village, or township, as the case may be.

[Reg. Dept. of H.]

XXVI. Smallpox.—* * *

Contacts, vaccination or quarantine. 4. All exposed persons must be vaccinated and kept under daily observation for 16 days.

5. All exposed persons refusing vaccination must be quarantined for 16 days.

[Court decisions]

(Michigan Supreme Court; *Mathews v. Board of Education of School District No. 1 of the City and Township of Kalamazoo*, 86 N. W. 1036; 127 Mich. 530; 54 L. R. A. 736; decided 1901.) A local school board was held to have exceeded its powers in adopting a general, continuing rule requiring that pupils be vaccinated before admission to the public schools.

(Michigan Supreme Court; *People ex rel. Hill v. Board of Education of City of Lansing*, 195 N. W. 95; 224 Mich. 388; decided 1923.) During the existence of smallpox in a city, the city board of health passed a resolution requiring the exclusion from the public schools of all unvaccinated pupils, teachers, and janitors until such time as in the opinion of the board of health the danger from smallpox had passed. Following this the city board of education passed a resolution directing the admission to school of unvaccinated pupils. In a mandamus proceeding to compel the enforcement of the board of health resolution, the action of the board of health was upheld.

(Michigan Supreme Court; *Keho v. Board of Auditors of Bay County*, 209 N. W. 163; 235 Mich. 163; decided 1926.) Where physicians, constituting a city board of health, vaccinated several thousand school children, teachers, and janitors in order to prevent the spread of smallpox in the city, the city, not the county, was held liable, under section 5096 of the Compiled Laws, 1915, for the expense of such free vaccination.

Minnesota

[General Statutes, 1923]

5345. Power of State board of health to make and enforce regulations; rule requiring vaccination of pupils prohibited; exclusion of unvaccinated children from school during smallpox epidemic; unfit subjects.—The [State] board [of health] may adopt, alter, and enforce reasonable regulations, of permanent application throughout the whole or any portion of the State, or for specified periods in parts thereof, for the preservation of the public health. Upon the approval of the attorney general and the due publication thereof such regulations shall have the force of law, except in so far as they may conflict with a statute or with the charter or ordinance of a city of the first class upon the same subject. In aid by the same the board may control, by requiring the taking out of licenses or permits, or by other appropriate means, any of the following matters:

* * * * * * * * * *
8. The furnishing of vaccine matter; the assembling, during epidemics of smallpox, with other persons not vaccinated. But no rule of the State board or of any public board or officer shall at any time compel the vaccination of a child, or shall exclude, except during epidemics of smallpox and when approved by the local board of education, a child from the public schools for the reason that such child has not been vaccinated. Any person thus required to be vaccinated may select for said purpose any licensed physician, and no rule shall require the vaccination of any child whose physician shall certify that by reason of his physical condition vaccination would be dangerous.

[Reg. Bd. of H.]

104. Use of certain vaccine, etc., prohibited.—No virus, serum, toxin, or analogous product shall be used in Minnesota for therapeutic purposes, the efficacy of which has been disapproved by the United States Public Health Service.

315. Vaccination of personnel in State institutions.—A successful vaccination must be required of all officers and employees in State institutions when such individuals are brought into contact in any way whatever with the wards of the institution.

316. Exclusion of unvaccinated teachers and pupils during prevalence of smallpox.—If smallpox prevails in a community, or if the disease appears in a school, all unvaccinated teachers and pupils must be excluded from school for a period of three weeks unless vaccinated within three days of first exposure. Failing to comply with this requirement, the school must be closed for a period of three weeks.

317. Same.—If smallpox appears in any class in any college in Minnesota, all unvaccinated teachers and students in the class must be excluded from school work for a period of three weeks unless vaccinated within three days of first exposure. Failing to comply with this requirement, the classes attended by such teachers or students must be discontinued for a period of three weeks.

1300. Placarding.—The local health officer shall post in a conspicuous place upon the entrance to premises where smallpox exists a notice in words and form as follows:

SMALLPOX

Exists on these premises

Smallpox patients must not leave the house until after the removal of the warning card.

Isolation of sick and unvaccinated.—Every person exposed to smallpox who can not show evidence of a recent successful vaccination or a recent attack of smallpox must be vaccinated within three days of first exposure or be isolated 21 days after last exposure.

Only those protected by vaccination are allowed to go into or from this house.

The occupants of this house will be held responsible for the unauthorized removal of this card.

(Date) — By order of — — — (health officer).

1301. Contacts, vaccination or quarantine when nonimmune.—All members of a household where smallpox exists shall be quarantined until released by the local health officer under the following provisions:

* * * * *

(b) Persons not protected by a recent successful vaccination or an attack of smallpox residing on premises where smallpox exists or directly exposed by association with a case of smallpox who refuse to be vaccinated shall be isolated and shall not be permitted to leave the premises until 21 days after last exposure.

(c) Persons who are protected by a recent successful vaccination or an attack of smallpox, or who submit to vaccination within three days after first exposure to smallpox, may be given written authorization by the local health officer to go into and from the premises under quarantine for smallpox.

1302. Free voluntary public vaccination.—Whenever smallpox shall be epidemic in Minnesota and in the judgment of the secretary of the State board of health vaccination shall be necessary to control such disease, not only in those health districts where cases of smallpox actually exist but also in those districts where no smallpox cases are present, then and in such case the health officer of each municipality or the chairman of the board of supervisors of each town shall arrange for the free voluntary vaccination of all of the inhabitants of the health district over which the local board of health has jurisdiction: *Provided*, That the governing body of such municipality or town shall appropriate money therefor. The expense thereof shall constitute an item incident to the control of a communicable disease and shall be deemed an incident to the establishment, enforcement, and release of quarantine, and one-half thereof shall be recoverable from the proper county as provided in section 4647, General Statutes, 1913.

[Court decisions]

(Minnesota Supreme Court; State ex rel. Freeman v. Zimmerman, 90 N. W. 783; 86 Minn. 353; 58 L. R. A. 78; 91 Am. St. Rep. 351; decided 1902.) Where there was in a city an epidemic of smallpox and imminent danger of its spreading, a regulation of the commissioner of health, requiring vaccination as a condition precedent to the admission of pupils to the public schools, was upheld.

(Minnesota Supreme Court; *Bright v. Beard*, 157 N. W. 501; 132 Minn. 375; decided 1916.) A case of smallpox having been discovered in a pupil in a certain school, a resolution of the city board of education, requiring that pupils, teachers, and employees in that school who had been exposed to smallpox should be vaccinated or else be temporarily excluded from the school, was held valid.

Mississippi

[Hemingway's Code, 1917]

4823. Vaccine for free vaccination of pupils and indigent persons.—The duties of the bureau on vital statistics of the [State] department [of public health] shall be, * * *

(3) To obtain from time to time supplies of reliable vaccine at the expense of the State board of health, which shall be furnished to the members of the county board of health, free of charge, for the purpose of vaccinating without charge the public school children of the county, and such indigent persons as may apply for vaccination at the office of said members of the county board of health.

4841. Compulsory vaccination; securing of vaccine; employment of vaccinating physicians.—The board of supervisors in the counties in which smallpox exists are hereby empowered to pass ordinances for providing for compulsory vaccination, to enforce same as hereinafter provided. The president or clerk of the board of supervisors shall make application to the secretary of the State board of health for a sufficient quantity of bovine virus to do the necessary vaccinating, and if the State board of health be unable to furnish same, the county health officer may get it elsewhere, and the cost of said virus shall be borne by the county so ordering. The board of supervisors shall make contracts with any reputable physician or physicians to do the vaccinating and pay for the same.

[Reg. Bd. of H.]

Smallpox.— * **

(b) *Contacts.*—All persons who have been exposed or suspected of having been exposed to a case of smallpox must be quarantined for a period of 14 days from date of last exposure, or until protected by vaccination. It is left to the discretion of the health officer in questionable cases to determine immunes.

Missouri

[Reg. Bd. of H.]

RULE 36. Smallpox.—* * *

Contacts, quarantine or vaccination.—(c) All persons exposed to the disease who have not had the disease or who have not been successfully vaccinated within two years shall be confined to the premises for 21 days after date of last exposure: *Provided*, That if all such persons shall undergo successful vaccination and refrain from contact with the patient, they may be released from such restrictions, to take up residence elsewhere.

(d) The health officer shall determine what constitutes contact or exposure, and successful vaccination in such individual instances.

[Court decisions]

(St. Louis Court of Appeals; *In re Rebenack*, 62 Mo. App. 8; decided 1895.) A rule of the St. Louis school board, which provided that no child should be received into the public schools without satisfactory evidence of vaccination, was held to be reasonable.

(Missouri Supreme Court; *State ex rel. O'Bannon v. Cole*, 119 S. W. 424; 220 Mo. 697; 22 L. R. A. (N. S.) 986; decided 1909.) The board of directors of a school district was held to have the right to make and enforce rules requiring that pupils be externally vaccinated with vaccine virus as a condition to their attendance at school, where there was either an actual or a threatened smallpox epidemic in the district.

Montana

[Revised Codes, 1921]

2481. Vaccination of pupils may be required when smallpox exists or is threatened.—Whenever smallpox exists or is threatened in any part of the State, the State board of health shall have authority to require all persons frequenting any schoolhouse within the infected or threatened district to be vaccinated, or to present

evidence of a successful vaccination with cowpox, and no person shall be permitted to enter any schoolhouse within the district included in the order of the State board of health unless such requirements are complied with.

[Reg. Bd. of H.]

[Part I, RULE I (b)] *Vaccination history in reporting smallpox.—* * **
*Provided, That * * * if the disease is, or [is] suspected to be, smallpox * * * [the report of the case shall show] whether the patient has been successfully vaccinated * * * and if the patient has been successfully vaccinated * * * the number of times and dates or approximate dates of such vaccination * * **

[Part II, Rule 1] *Vaccination of children at certain State institutions.*—All children on admission to State Vocational School at Helena, State Industrial School, Miles City, State School for Feeble-minded and the School for Deaf and Blind at Boulder, and the State Orphans' Home at Twin Bridges must show evidence of successful vaccination against smallpox or be immediately vaccinated on entrance, * * *.

[Part II, RULE XXXIX] *Smallpox (variola).*—* * *
 (c) *Contacts, quarantine or vaccination when nonimmune.*—All persons in household or persons exposed to the disease who have not had the disease or been successfully vaccinated shall be confined to the premises for 21 days after date of last exposure: *Provided, That if all nonimmune persons shall undergo successful vaccination and refrain from contact with the patient they may be released from such restrictions.*

(d) *Determination of what constitutes contact and successful vaccination.*—The health officer shall determine as to what constitutes contact or exposure and successful vaccination in each individual instance.

* * * * *

(f) *Exclusion of unvaccinated pupils and teachers when smallpox exists or is threatened; closing of schools, churches, etc.*—Whenever smallpox exists or is threatened in any school district or part thereof the State board of health (or, in the interim of its meetings, its secretary and executive officer) may direct the local or county health officer having jurisdiction to prohibit the attendance at school in any such district or part thereof for a period of 25 days after the appearance of smallpox of any and all pupils and teachers who have not been successfully vaccinated.

Should new cases of smallpox continue to develop in such school district or part thereof after the expiration of 25 days, such order may be renewed for another period of 25 days or so many days thereof as the State board of health (or its secretary and executive officer) may deem necessary in order to control the epidemic.

In the event that any board of education or school board or principal or teachers in any school district or part thereof where the disease is present shall fail to cooperate in the enforcement of such order the school may be ordered to be closed, and in extreme cases church services suspended and public assemblages of people at shows, circuses, theaters, fairs, or other gatherings prohibited.

The reports of physicians or of local or county health officers shall be prima facie evidence of the existence of the disease in any community.

* * * * *

Nebraska

[Reg. Dept. of Public Welfare]

SMALLPOX.—* * *

Quarantine:

(A) *Of contacts:* Fourteen days, unless they can prove they have had smallpox or have been vaccinated in the past six years. A contact may be released from quarantine if he or she is vaccinated within three days after being exposed to smallpox.

* * * * *

Methods of control:

(A) *Vaccination defined.*—Vaccination against smallpox shall consist of scarification or puncture of the skin, and the introduction therein of the active principles of cowpox followed by a characteristic lesion or scar.

When does it protect.—Before a person has been exposed to smallpox. If vaccinated within three days after exposure, it has a better chance to protect than later.

* * * * *

(C) General measures.—

1. *School children.*—Who have had smallpox or have been successfully vaccinated may attend school: *Provided*, They do not enter premises under quarantine.
- 2 *General public.*—Vaccinate as many as possible who have not been vaccinated in the past six years or have not had the disease.

* * * * *

QUARANTINE AND PLACARD.—* * *

When the head of the family or bread winner desires to be quarantined out the local board of health at its discretion may so arrange if not endangering public health: *Provided*, That if the disease is smallpox, no one can be quarantined out unless they can prove they have had smallpox or have been vaccinated within the preceding six years.

* * * * *

SCHOOL INSPECTION.—* * *

The right of school board to enforce vaccination against smallpox.—Whenever there exists in a community an epidemic or whenever smallpox to the number of one or more cases exists amongst children that have attended school while suffering with the disease in the eruptive stage, it shall be the duty of the school board to order teachers and pupils vaccinated or debarred from school.

Who to keep out of school when one member of a family is suffering with a communicable disease.—* * *

Should the disease be smallpox, those children who will be vaccinated can continue at school: *Provided*, They do not go back in the premises under quarantine.

For those who have had smallpox or have been vaccinated in the past six years, they may continue at school: *Provided*, They do not get back into the premises under quarantine.

Nevada

[Reg. Bd. of H.]

[Ch. 2] **RULE 8. Release of contacts from smallpox quarantine.**—Any adult living in premises under quarantine, or any child who has previously had the disease for which the quarantine has been established, may be released from quarantine by the written order of the local health officer, and shall not be permitted to reenter the premises until quarantine is released, except as follows: (a) In quarantine for smallpox, no unvaccinated person shall be released before the end of the quarantine period; * * *

RULE 13. Permitting wage earners to attend usual vocation.—If the wage earners of the household are protected by either a natural or acquired immunity from any of the quarantinable diseases [smallpox included], * * * at the discretion of the local health officer such wage earners may be permitted to attend their usual vocation, provided:

- a. That the patient is properly isolated as described in rule 9.
- b. That such persons change their exterior clothing upon entering or leaving the house, and when on the infected premises leave their garments for outside wear hanging without the quarantined premises.
- c. That no person be permitted to take advantage of this rule who is employed in the public or private schools, churches, places of public amusement, or any place where people, other than adults exclusively, congregate for any purpose.

RULE 16. Smallpox.—* * *

Release of vaccinated persons from quarantine.—Any person who has been successfully vaccinated within three years, or who has had smallpox, may be released from quarantine upon proper disinfection of his person and clothing.

Vaccination defined.—Vaccination for smallpox is defined as the introduction, through an incision into the skin, of the bovine vaccine virus. * * *

New Hampshire

[Public Laws, 1928, ch. 123]

1. *Vaccination of pupils required.*—No child shall attend a public or private school in this State unless he has been vaccinated; or has had the smallpox; or has submitted not less than three times to the process of vaccination; or holds a certificate of the local board of health that he is an unfit subject for vaccination. The local board of health shall issue such a certificate on the advice of a registered physician approved by it.

[Public Laws, 1926, ch. 133]

1. Vaccinating officer, appointment by towns when; free vaccination.—The selectmen of a town, whenever in their opinion the health of the inhabitants of the town, by reason of the spreading of the smallpox, shall require it, may appoint an agent for vaccination, who shall be provided at all times with suitable matter for communicating the kine pox. He may vaccinate at the expense of the town all persons who have not had the smallpox or the kine pox, and shall receive a suitable compensation therefor, to be paid by the town.

[Court decisions]

(New Hampshire Superior Court; *Wilkinson v. Albany*, 28 N. H. 9; decided 1853.) The selectmen of a town requested a physician to render medical services to, and to vaccinate, a family in which smallpox had occurred. The physician was held entitled, under the terms of a statute, to recover from the town for his services in vaccinating, but, as the family were not paupers, the town was held not liable for the general medical attendance.

(New Hampshire Supreme Court; *Barber v. School Board of Rochester*, 135 A. 159; decided 1926.) A State law provided that "No child shall attend a public or private school in this State unless he has been vaccinated; * * * or holds a certificate of the local board of health that he is an unfit subject for vaccination." Certain school children had furnished certificates of unfitness, and in the following year the local school board demanded new certificates. In a proceeding brought by the father of the pupils', the statute was held constitutional, and the meaning of the statute was declared to be that "a new certificate may be required whenever there is reasonable ground to believe that there may have been such a change of conditions that the child is no longer 'an unfit subject for vaccination.'"

New Jersey

[Compiled Statutes, 1910, pp. 2667-2668]

22. Vaccination of pupils may be required; revaccination.—That any board of education, school trustees, or other body having control of the public schools * * * may prohibit the attendance of any unvaccinated child who has not had the smallpox, and shall also have the power to decide how far revaccination shall be required if a case or cases of smallpox have occurred in the city or district.

23. Free vaccination of indigent pupils.—That at the enrollment of the children by the clerk of the school districts in the townships of this State, or by other proper officers in the cities or municipalities, inquiry shall be made as to how many of the children within the school age are unvaccinated, and the same shall be designated by a mark on the said roll, and in case any are found to be unvaccinated, whose parents desire them to be protected from smallpox, and who, in the judgment of the board of education or the trustees of the school districts, are unable to pay therefor, the clerk of said district, or other authorized person, may give to the said child or children a permit to appear at the office of any regularly licensed physician in said district or municipality to be vaccinated, and such physician, on presentation of said permit, with his certificate appended thereto that the said vaccination has been by him successfully performed, shall be entitled to receive from the said township or local municipal authority the sum of 50 cents for each case so certified, and the same shall be paid in the same manner that other bills for current expenses are paid therein.

[Compiled Statutes, 1910, p. 2725]

250. SEC. 4. Impure, etc., vaccine, prohibition of sale or use; penalty.—That if the board of health of the State of New Jersey shall ascertain any vaccine virus * * * sold, or offered for sale, or held for sale or use within this State for prophylactic or remedial purposes, to be dangerous to human health, or so impure or inert as to be inefficacious in rendering immune or less susceptible to disease any person in whom such product may be used, it shall be lawful for the said Board of Health of the State of New Jersey to prohibit the further sale or use within this State of any vaccine virus * * * manufactured or produced by the party who shall have manufactured or produced such dangerous, inert, impure, or inefficacious product; any person who shall, after such prohibition, and with knowledge thereof, sell, or offer for sale, or use or offer for use within this State any such prohibited product shall be liable to a penalty of \$100.

[Compiled Statutes, 1910, p. 2729]

257. SEC. 6. Vaccination fees applicable to vessels.—Every [maritime] health officer appointed as aforesaid is hereby authorized to ask, demand, and receive from the master or commander of any vessel in respect of which any of the duties prescribed by this act shall be performed the following fees: * * * for vaccination of persons on board of any vessel on which smallpox has developed during the voyage, each 25 cents; * * *

[Compiled Statutes, 1910, pp. 4766-4767]

121. Exclusion from school of unvaccinated teachers or pupils authorized; unfit subjects.—A board of education may exclude from school any teacher or pupil who shall not have been successfully vaccinated or revaccinated, unless such teacher or pupil shall present a certificate signed by a regularly licensed physician that such teacher or pupil is an unfit subject for vaccination: *Provided*, That in any district having a medical inspector appointed by the board of education the certificate hereinbefore provided for shall be furnished by such medical inspector. * * *

122. Free vaccination of indigent pupils.—In case any pupil enrolled in a public school shall be found to be unvaccinated, whose parents shall be in the judgment of the board of education unable to pay for the vaccination of such pupil, the district clerk or secretary of the board of education may give to said pupil a permit to appear before any regularly licensed physician to be vaccinated, and such physician, on presenting said permit with his certificate appended thereto that the vaccination has been by him successfully performed, shall receive from the township, city, incorporated town, borough, or other municipality in which said pupil shall reside the sum of 50 cents.

[Reg. Dept. of H.]

[Ch. 6] **REG. 28. Contacts, vaccination or quarantine.**—* * * Every inmate of a household in which any such [smallpox] case may have occurred, and every person who has been in contact with such case or with the secretions or excretions therefrom, shall either be immediately vaccinated or quarantined. If such vaccination has been done within 3 days of the date of his first exposure to the disease, the name and address of such inmate or person shall be taken and he shall be kept under daily observation until successful vaccination results, or for at least 20 days. If such vaccination has been done after the expiration of a longer period than 3 days from his first exposure to the disease, he shall be kept under quarantine until successful vaccination results, or for at least 12 days. If such inmate or other person refuses to be vaccinated, he shall be quarantined at his own expense for at least 20 days from the date of his last exposure, and until discharged by the health officer.

REG. 29. Free vaccination.—It shall be the duty of the board of health of every municipality to provide, at public expense, free vaccination against smallpox * * * for all persons who apply for the same, * * * and to make public offer of such free vaccination, * * *

New Mexico

[Acts of 1919, ch. 85]

SEC. 27 [as amended by ch. 145, acts of 1921]. Provision for vaccination of inhabitants of State.—The State department of public welfare shall make suitable provision for the inoculation of the inhabitants of this State with cowpox vaccine, under the direction of county health officers.

SEC. 28. Vaccination of pupils required; penalty.—It shall be the duty of the school superintendent of each county to see that all children in his county of school age are vaccinated against smallpox, and to that end each teacher of a public school shall see that the children under his control have been successfully vaccinated, and it shall be unlawful for any child to attend school or for any teacher to allow such child within any schoolhouse unless so vaccinated or showing proper certificate that it has been so vaccinated. Such teacher shall make report of the number of children whom he has caused to be vaccinated and those who have presented proper certificates that they have been vaccinated, to the county school superintendent at the beginning of the school year and as often thereafter as he may deem necessary, together with the report of the names of any parents who refuse to allow their children to be vaccinated, and any person who shall refuse or neglect to have his or her children vaccinated according to the

law shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined not less than \$10 nor more than \$100 or imprisoned in the county jail not exceeding 100 days.

SEC. 29 [as amended by ch. 145, acts of 1921]. *Vaccination may be done by whom; free vaccination for indigent pupils; internal use of variolinum allowed; fees to full-time health officer for vaccination work prohibited; expense for vaccine, etc.*—The vaccination required in the next preceding section may be done by any licensed physician or under his direction, and shall be paid for by the parents of such children, when they are able to do so, but in case of their inability to pay for the same by reason of poverty, then such vaccination shall be done by the county health officer or under his direction, and shall be paid for by the county or municipal board of education: *Provided*, That inoculation for the prevention of smallpox by the internal use of variolinum taken under the direction and care of a licensed physician may take the place of vaccination with cowpox where inoculation by vaccination is required by this act: *Provided further*, That no health officer who is employed to give his entire time to the duties of his office shall receive any fee or payment other than his regular salary for performing the work required by this section but in such case the board of education shall defray the expenses for vaccine and other supplies incurred by the county health officer in carrying out the provisions of this section.

SEC. 30. *Unfit subjects for vaccination.*—Any minor child, through its parent or guardian, may file with the health authority charged with the duty of enforcing the vaccination laws, the certificate of a duly licensed and practicing physician stating that the physical condition of such child is, at the time, such that vaccination would seriously endanger the life or health of such child, and thereupon such child shall be exempt from the provision of sections 28 and 29 of this act, but shall not be exempt from the quarantine laws, rules, and regulations.

[Reg. Bd. of Public Welfare governing morbidity reports]

SEC. 2. * * *

(11) *Vaccination history in reporting smallpox.*—If the disease is, or is suspected to be, smallpox the report [of a case] shall in addition show * * * whether the patient has ever been successfully vaccinated, and if the patient has been successfully vaccinated, the number of times and dates or approximate dates of such vaccinations.

[Reg. Bd. of Public Welfare governing control of communicable diseases]

SMALLPOX.—* * *

3. *Quarantine of nonimmune contacts* for 21 days from date of last exposure or until protected by successful vaccination.

4. *Immunization.*—External inoculation with cowpox virus shall be offered to all nonimmune contacts.

* * * * *

7. *General measures.*—Education of the public in the need of vaccination, and enforcement of the law requiring vaccination of school children before they may be permitted to attend school.

[Reg. Bd. of Public Welfare governing certain biologic preparations]

SECTION 1. Biologic preparations defined.—Biologic preparations, within the meaning of these regulations, are such products as vaccines, vaccine viruses, rabies viruses, toxins, toxoids, anatoxins, antitoxins, bacterins, sera, mixtures of any of these and other preparations of a similar nature, intended for the prevention or treatment of human diseases and for the prevention of rabies in animals.

SEC. 2. Keeping at certain temperature.—Any person who sells or offers for sale and any health officer or his agent who maintains supplies of biologic preparations shall keep the same at a temperature not exceeding 50° F. and not lower than 35° F. at all times, excepting such times as packages are in actual use or in transit.

New York

[Cahill's Consolidated Laws, 1923, ch. 46]

SEC. 25. Providing of vaccine and vaccination.—* * * The [local] board of health shall provide at stated intervals a suitable supply of vaccine virus, of a quality and from a source approved by the State department of health, and during an actual epidemic of smallpox obtain fresh supplies of such virus at

intervals not exceeding one week, and at all times provide thorough and safe vaccination for all persons in need of the same. * * *

SEC. 124. *Examination for vaccination and quarantine of certain persons at port of New York.*—* * * All persons coming from or through any foreign port or place who may arrive at the port of New York, shall be liable to an examination by the health officer [for the port of New York] or his deputies, as regards their protection from smallpox. In case any person so arriving shall refuse to submit to such examination, or upon such examination shall be found not sufficiently protected from smallpox, or refuses to be protected by vaccination, such person, and in case such person be a minor, then also the person having him or her under charge, shall be detained in quarantine until he or she shall have passed the incubative period from date of last possible exposure; * * *

SEC. 129. *Vaccination of smallpox contacts at port of New York.*—* * * Persons [arriving at the port of New York] with insufficient evidence of vaccination and known to have been recently exposed to smallpox, shall be vaccinated as soon as practicable and detained until the vaccination shall have taken effect, under regulations prescribed by the health officer [for the port of New York].

SEC. 134. *Examination for vaccination and quarantine of certain persons at port of New York.*—All persons coming from or through any foreign port or place who may arrive at the port of New York, shall be liable to an examination by the health officer [for the port of New York] or his deputies as regards their protection from smallpox.

If any such person shall refuse to submit to such examination or on such examination shall be found not sufficiently protected from smallpox or shall refuse to be protected by vaccination, such person, together with the person having him in charge if he be a minor, shall be detained in quarantine until he shall have passed the incubative period from the date of the last possible exposure; * * *

SEC. 144. *Fees for vaccination at port of New York.*—* * * Fees [receivable by the health officer for the port of New York on behalf of the State] for the following services shall not exceed the following rates: For vaccination of persons on vessels, each 25 cents. But no charge shall be made for the vaccination of any person who shall have been successfully vaccinated by the medical officer of said vessel. * * *

SEC. 310. 1. *Vaccination of pupils in first and second class cities required; free vaccination of pupils.*—A child or person not vaccinated shall not be admitted or received into a school in a city of the first or second class. The board, officers, or other person having the charge, management, or control of such school shall cause this provision of law to be enforced. The board of health or other board, commission, or officers of such city having jurisdiction of the enforcement of the chapter therein shall provide, at the expense of the city, for the vaccination of all pupils of such school whose parents or guardian do not provide vaccination for them.

2. *Vaccination of other pupils required when; free vaccination of pupils.*—Whenever smallpox exists in any other city or school district, or in the vicinity thereof, and the State commissioner of health shall certify in writing to the school authorities in charge of any school or schools in such city or district, it shall become the duty of such school authorities to exclude from such schools every child or person who does not furnish a certificate from a duly licensed physician to the effect that he has successfully vaccinated such child or person with vaccine virus in the usual manner or that such child or person shows evidence by scar of a successful previous vaccination. Whenever school authorities having the charge, management, and control of schools in a district or city cause this provision of law to be enforced, the local board of health shall provide for the vaccination of all children whose parents or guardian do not provide such vaccination.

3. *Expense of free vaccination.*—The expense incurred, when such vaccination is performed under the direction of the local health authorities, shall be a charge upon the municipality in which the child or person vaccinated resided, and shall be audited and paid in the same manner as other expenses incurred by such municipality are audited and paid. The local boards of health or other health authorities may, in their discretion, provide for the payment of additional compensation to health officers performing such vaccination.

SEC. 311 [as amended by ch. 368, acts of 1925]. 1. *Vaccination must be done by physician; manner of performance.*—No person shall perform vaccination for the prevention of smallpox who is not a regularly licensed physician under the laws of the State. Vaccination shall be preformed in such manner only as shall be prescribed by the State commissioner of health.

2. *What vaccine may be used.*—No physician shall use vaccine virus for the prevention of smallpox unless such vaccine virus is produced under license issued by the Secretary of the Treasury of the United States or under a certificate of approval issued by the State commissioner of health, and such vaccine virus shall then be used only within the period of time specified by the expiration date.

3. *Reports of vaccinations by physicians.*—Every physician performing a vaccination shall within 10 days make a report to the local health officer upon a form furnished by the State commissioner of health, setting forth the full name and age of the person vaccinated and, if such person is a minor, the name and address of his parents, the date of vaccination, the date of previous successful vaccination, if possible, the name of the maker of the vaccine virus, the lot or batch number of such vaccine virus and whether upon reexamination after a proper interval such vaccination was found to be successful or nonsuccessful.

4. *Reports of vaccinations to be kept in local health office; monthly reports by local health officers to State health department.*—Every local health officer shall retain in the files and records of his office every report of a vaccination reported to him under the provisions of the preceding paragraph and shall report once in each month to the State department of health the number of vaccinations reported to him during the preceding month, together with the number of those which were successful and the number unsuccessful. Such report shall be made in such manner as shall be prescribed by the State commissioner of health.

[Reg. Dept. of H.]

[Ch. 2] REG. 30. *Contacts, vaccination or quarantine.*—It shall be the duty of every health officer, whenever a case of smallpox occurs in his jurisdiction, if a suitable hospital is available, to remove or cause to be removed such case promptly thereto. Every inmate of the household where such case occurs, and every person who has had contact with such case, or with his secretions or excretions, shall be either vaccinated within three days of his first exposure to the disease or placed under quarantine, and, when vaccinated, the name and address of such inmate or other person shall be taken and such inmate or other person shall be kept under daily observation. Such observation shall continue until successful vaccination results, or for at least 20 days. If such inmate or other person refuses to be vaccinated, he shall be quarantined until discharged by the local health officer.

If there is no hospital available, the patient shall be isolated and every inmate of the household shall be vaccinated or strictly quarantined until discharged by the local health officer.

Whenever a case of smallpox occurs in his jurisdiction, it shall be the duty of the local health officer to use all diligence in securing the names and addresses of all persons who have had contact with such case, and in causing such persons to be either vaccinated or placed under quarantine.

REG. 31. *Free vaccination.*—It shall be the duty of the board of health of every municipality to provide, at public expense, free vaccination for all persons in need of the same, except that in a general health district such cost shall be a charge upon such general health district.

[Reg. Commissioner of H.]

APPROVED METHODS OF VACCINATION.—1. *Vaccine.*—Only vaccine which has been kept constantly cold shall be used. Vaccine shall not be used later than the date stamped upon the container.

2. *Vaccination site.*—The vaccination should be performed on the arm (preferably the left arm in right-handed persons, and vice versa), over the insertion of the deltoid muscle. Vaccinations on the leg are not recommended, but if so done the person vaccinated should rest in bed from the time of the appearance of the vesicle until the crust is well formed.

3. *Preparation of site.*—The arm should be clean, and should be prepared with a volatile disinfectant, which must be allowed to evaporate completely before the vaccine is applied or the skin broken. Care must be taken not to use alcohol which has been denatured with bichloride of mercury or other nonvolatile disinfectant.

4. *Vaccination methods.*—One of the following methods shall be used, unless special permission for the use of another method is obtained from the State commissioner of health:

(a) *Incision method.*—This consists of a single superficial scratch with a sterile needle. An attempt should be made not to draw blood. The scratch should not be more than one-fourth of an inch long (one-eighth of an inch is better) and may be made through a drop of vaccine, or the vaccine may be applied afterwards. The vaccine should be gently rubbed into the scratch with the side of the needle or other suitable sterile instrument.

(b) *Multiple puncture method.*—This consists of six to ten very superficial punctures with a sterile round needle within an area no larger than one-eighth of an inch in diameter, the punctures being made through a drop of vaccine. The needle is held nearly parallel with the skin and should be inserted into (not through) the skin, barely deep enough to penetrate the scarf skin (not far enough to draw blood).

(c) *Drill method.*—This is performed with a sterile chisel or "drill" having an edge not more than one-twelfth of an inch long, the skin being held taut. Only a single revolution is made and the pressure should not be sufficient to draw blood, but just enough to remove a superficial layer of the cuticle. The vaccine is then applied and gently rubbed in with the side of a sterile needle or sterile toothpick or other suitable sterile instrument.

5. *Disapproved methods.*—The following methods are specifically disapproved:

- (a) Crosshatching.
- (b) Multiple scratches or scarifications less than 1 inch apart.
- (c) Scratches more than one-fourth of an inch in length.

6. *Observation of vaccination.*—(a) If the person vaccinated has a scar of a previous vaccination, or if he has a history of possible smallpox, he shall be instructed to return for observation within 48 hours and again on the fifth to seventh day.

(b) If he has no scar nor a history of possible smallpox, on the fifth to seventh day.

7. *Second vaccination.*—If no reaction of immunity appears within 48 hours, or if a reaction resembling the reaction of immunity appears later than 48 hours and proves not to be a primary vaccinia or vaccinoid when observed on the fifth to seventh day, a second vaccination should be performed, being sure to use potent vaccine and being careful as to technique. A reaction should occur in every instance. Failure to find it means impotent vaccine, improper technique, or possibly the use of disinfectants by the person vaccinated at some time shortly after the vaccination was performed.

8. *Care of vaccination.*—The person vaccinated is to be instructed by the physician in the proper care of the vaccination. No "shields" of any sort shall be provided or recommended. After the vesicle has developed six to eight thicknesses of gauze strapped at the edge with adhesive tape may be worn as a protection. The gauze should be of sufficient size to prevent the adhesive tape from covering any part of the inflamed area of the skin. The person vaccinated should be warned against injury to the vaccination or excessive use of the arm (or leg). The crust which finally forms should be allowed to fall off.

9. *Reports of vaccinations.*—The vaccination must be reported to the local health officer as required by the public health law. Forms for this purpose are provided by the State department of health.

[Court decisions]

(New York Supreme Court; *In re Walters*, 32 N. Y. S. 322; 84 Hun 457; decided 1895.) A State law, which provided that no unvaccinated person should be admitted or received into the public schools, was held constitutional.

(New York Court of Appeals; *In re Smith*, 40 N. E. 497; 146 N. Y. 68; 28 L. R. A. 820; 48 Am. St. Rep. 769; decided 1895.) Smallpox was present in the city of Brooklyn and the city health commissioner sought to quarantine, until they consented to be vaccinated, certain persons engaged in an express delivery business, because of the possibility of their becoming infected and spreading the disease. The health commissioner was held to be without authority to take such action.

(New York Court of Appeals; *Viemeister v. White*, 72 N. E. 97; 179 N. Y. 235; 70 L. R. A. 796; 103 Am. St. Rep. 859; 1 Ann. Cas. 334; decided 1904.) A statute, which provided that no unvaccinated child or person should be admitted or received into any of the public schools of the State, was held to be a health law, enacted in a reasonable and proper exercise of the police power, and not violative of the constitution.

(New York Court of Appeals; *People v. Ekerold*, 105 N. E. 670; 211 N. Y. 386; L. R. A. 1915D 223, 37 Ann. Cas. 552; decided 1914.) In a prosecution

of a parent under the education law for failure to cause attendance upon instruction on the part of his child, it was held to be no defense that the child had been excluded from the public schools because of a refusal to comply with another law requiring vaccination of pupils in such schools.

(New York—Delaware County Court; *People v. McIlwain*; 151 N. Y. S. 366; decided 1915.) The holding is the same as in *People v. Ekerold*, *supra*.

North Carolina

[Consolidated Statutes]

2796. Compulsory vaccination.—The governing body [of a city, town, or incorporated village] * * * may cause all persons in the city [, town, or village] limits to be vaccinated; * * *.

7162. Warning of presence of smallpox; notification of public as to preventive measures; vaccination of pupils may be required; penalty.—On the appearance of a case of smallpox in any neighborhood, town, or city, the quarantine officer shall use all due diligence to warn the public of its existence and to notify the public of the proper means for preventing its spread; the said warning and notification to be according to the instructions of the State health officer. The board of health of any town, city, or county shall have authority to require children attending the public schools to present certificate of immunity from smallpox, either through recent vaccination or previous attack of the disease. If any parent, guardian, school committee, principal, or teacher shall permit a child to violate such a requirement of the aforesaid authorities, he or she shall be guilty of a misdemeanor, and fined not less than \$10 nor more than \$50.

7163. Free vaccination of indigent persons; vaccination of inmates of public institutions.—On the appearance of a case of smallpox in any neighborhood due warning of the existence of the disease shall be given, and all persons not able to pay shall be vaccinated free of charge by the county physician or health officer or by the municipal physician or health officer, and the county physician or health officer shall vaccinate every person admitted into a public institution, jail, or county home as soon as practicable, unless he is satisfied, upon examination, that the person is already successfully vaccinated; the money for vaccine to be furnished by the county commissioners.

7164. Regulations by local boards of health for vaccination of inhabitants authorized; penalty.—The board of health of any city, town, or county may make such regulations and provisions for the vaccination of the inhabitants of their city, town, or county, and impose such penalties as they may deem necessary to protect the public health, and the violations of such rules shall be a misdemeanor, punishable by fine not exceeding \$50 or imprisonment not exceeding 30 days.

[Reg. Bd. of H.]

13. Vaccination of prisoners.—The prisoners [in convict camps] should be vaccinated at the same time of their conviction and every seven years thereafter. If smallpox breaks out in a camp, it is best then to revaccinate all of the prisoners, unless they have been recently vaccinated. The percentage of prisoners vaccinated will be scored from 0 to 2.

[Court decisions]

(North Carolina Supreme Court; *State v. Hay*, 35 S. E. 459; 126 N. C. 999; 49 L. R. A. 588; 78 Am. St. Rep. 691; decided 1900.) Pursuant to statutory authority, a town passed an ordinance requiring the vaccination of all citizens of the town not successfully vaccinated within the last three years. The legislature was held to have the power to authorize municipalities to require compulsory vaccination, and the enactment by the town under the authorization was upheld.

(North Carolina Supreme Court; *Hutchins v. School Committee of Town of Durham*, 49 S. E. 46; 137 N. C. 68; decided 1904.) Where smallpox had been epidemic in a community and was still threatening, a resolution of a local school committee, excluding from the public schools all unvaccinated pupils and teachers, was held to be a proper and reasonable exercise of the powers of the committee.

(North Carolina Supreme Court; *Morgan v. Stewart*, 57 S. E. 149; 144 N. C. 424; decided 1907.) This case was an action for malicious prosecution. The

defendant, as county superintendent of health, had instituted a prosecution against the plaintiff, a school teacher, for an alleged violation of a regulation of the county sanitary committee requiring compulsory vaccination. The teacher was tried and acquitted, and then brought the action for malicious prosecution against the county health superintendent. In the malicious prosecution action the regulation requiring compulsory vaccination, adopted under a statute authorizing the same on the appearance of smallpox in a neighborhood, was upheld as a valid exercise of the authority conferred on the county sanitary committee.

North Dakota

[1913-1925 Supplement to 1913 Compiled Laws]

SEC. 425a1. Vaccination not to be made a condition precedent.—No form of vaccination or inoculation shall hereafter be made a condition precedent, in this State, for the admission to any public or private school or college, of any person, or for the exercise of any right, the performance of any duty, or the enjoyment of any privilege by any person.

SEC. 425a2. Repeal.—Section 425 of the Compiled Laws of North Dakota is hereby repealed, as well as are all acts and parts of acts in conflict with the provisions of this act.

[Reg. Dept. of H.]

REG. 26. * * *

(b) *Vaccination history in reporting smallpox.*—Upon receipt of notice of any communicable disease within his district or when such disease is found on investigation, the health officer shall immediately make a report of such case to the secretary State board of health [State health officer], giving the following information with regard to each case: * * * if smallpox, * * * the number of times the patient has been successfully vaccinated, with approximate dates of such vaccinations; * * *

REG. 33. * * *

(g) *Exclusion from school of unvaccinated pupils when smallpox exists.*—All children in any community where smallpox actually exists shall be excluded from private, parochial, or public schools until vaccinated, unless they can present certificate from a legally qualified physician attesting to a successful vaccination within seven years, or can give positive proof of having already had smallpox.

[Court decision]

(North Dakota Supreme Court; *Rhea v. Board of Education of Devils Lake Special School District*, 171 N. W. 103; 41 N. D. 449; decided 1919.) The State board of health ordered that all children should be vaccinated before being allowed to attend school. Acting under this order the board of education of a school district made a similar order refusing admission to unvaccinated children. Smallpox was not present and was not reasonably to be apprehended when the order was made. Under the law the State board of health had power to make and enforce regulations for the prevention of communicable diseases. It was also made the duty of parents or guardians to have minors vaccinated. Another provision of the statutes enumerated the causes for exclusion from school, but nonvaccination was not one of the causes. Construing these various provisions, the court held, in a proceeding against the board of education, that the State board of health was not authorized to make such an order and that the board of education could not exclude children solely on the ground of nonvaccination.

Ohio

[Page's Annotated General Code, 1926]

SEC. 4449. Free vaccination.—The [local] board of health may take measures and supply agents and afford inducements and facilities for gratuitous vaccination.

SEC. 7686. Regulations to secure vaccination of pupils authorized; free vaccination of pupils.—The board [of education] of each district may make and enforce such rules and regulations to secure the vaccination of, and to prevent the spread of smallpox among the pupils attending or eligible to attend the schools of the district, as in its opinion the safety and interest of the public require. Boards of health, councils of municipal corporations, and the trustees of townships, on application of the board of education of the district, at the public expense, without delay, shall provide the means of vaccination to such pupils as are not provided therewith by their parents or guardians.

[Reg. Dept. of H.]

REG. 11. * * *

Vaccination defined.—Vaccination for the prevention of smallpox signifies an inoculation by incision, puncture, scarification, or injection beneath the epidermis of a vaccine which produces with some constitutional disturbance, the typical vaccine vesicle, and which leaves after the pock has healed, a characteristic scar.

REG. 16. Quarantine of contacts.—The quarantine provided for in the preceding regulations shall be applied as follows:

* * * * *

Smallpox.— * **

For exposed persons: (1) Residing in the house or place with the patient. Exposed persons who are immune by reason of a previous attack or by successful vaccination within five years, shall be permitted to remove from the house provided they do not return until the quarantine is lifted. Immune persons who do not remove from the house must remain until quarantine is lifted.

Susceptible persons must remain in the quarantined house unless they are vaccinated within 4 days of first exposure, when they may be permitted to remove providing they remain under the observation of the health commissioner or some physician appointed by him.

Susceptible persons who refuse vaccination or who are vaccinated later than 4 days following first exposure shall remain in the quarantined house until disinfection is performed, and for an additional period of 17 days, unless 17 days shall have elapsed since the time of successful vaccination.

(2) Residing apart from the patient. Exposed persons who are immune by reason of a previous attack, or by successful vaccination within five years, shall not be quarantined.

Exposed persons who are vaccinated within 4 days of the first exposure shall be kept under observation for a period of 12 days by the health commissioner or some physician appointed by him, but shall not be quarantined.

Exposed persons who can not be vaccinated within 4 days of the first exposure, but who are later vaccinated, shall be quarantined until there is plain evidence of successful vaccination or until 17 days from the date of last exposure to the disease.

Exposed persons who refuse vaccination shall be quarantined for 17 days from the date of last exposure to the disease.

[Court decisions]

(Ohio Supreme Court; State ex rel. Milhoof v. Board of Education of Village of Barberton, 81 N. E. 568; 76 Ohio St. 297; 10 Ann. Cas. 879; decided 1907.) Acting under a statute authorizing the same, a village board of education adopted a regulation requiring the vaccination of pupils as a prerequisite to the right to attend the public schools. The statute and the regulation adopted thereunder were held valid.

For a decision of the Ohio Second Circuit Court see State v. Turney, 31 Ohio Cir. Ct. R. 222, decided 1909.

Oklahoma

[Reg. Commissioner of H.]

[Ch. 2, RULE 3.] *Release from quarantine.*—SEC. 2. On the termination of the disease [smallpox] quarantine may be released unless there are persons on the premises who are unprotected, either by vaccination or a previous attack of smallpox, in which case the quarantine shall be continued for 14 days.

SEC. 3. Any person who has been successfully vaccinated within five years, or who has had smallpox, may be released from quarantine, upon proper disinfection of his person and clothing.

SEC. 6. Any person not protected by smallpox or vaccination, who has been exposed recently to the disease, may be released from quarantine when satisfactory evidence of vaccination has been presented to the local or county health officer.

SEC. 7. Nothing in these rules shall be construed to prevent egress from or entrance to the premises under quarantine of any other occupant of the premises who has had smallpox or adequate vaccination under special permission of the local or county health officer. To obtain such permission, such person shall agree not to enter the sick room and he shall upon leaving the premises wash his face and hands in a disinfecting solution.

Oregon

[Olson's Laws, 1920]

SEC. 8388. Contacts on common carriers, free vaccination.—Should discovery be made of the existence among the passengers [on any railroad car or steamboat] of any case or cases of dangerous, communicable disease, the health officer or his agents or inspectors, under rules and conditions prescribed by the State board of health, as being applicable to the nature of the disease, shall have power * * * to offer free immunization in those diseases to which such prophylactic treatment is applicable, to all persons exposed in any car or at any station or port. * * *

SEC. 8393. Vaccination of pupils may be required; revaccination.—Any board of school directors * * * may prohibit the attendance of any unvaccinated child, who has not had the smallpox, upon the schools under their control, and shall also have the power to decide how far revaccination shall be required if a case or cases of smallpox have occurred in the city or district.

[Reg. Bd. of H.]

SEC. 28. SMALLPOX.—* * *

Release of persons before termination of quarantine.—* * *

2. *Adults not ill with the disease* may be instructed, disinfected, and released to live elsewhere, provided they have been successfully vaccinated within the past five years and that evidence of the same is deemed sufficient by the local board of health.

3. *School children known to be immune.*—Children of school age or less than school age who have been successfully vaccinated within the past five years and evidence of the same is deemed sufficient by the local board of health may be instructed, disinfected, and released to live elsewhere, and may then return to school.

4. *Children and adults not known to be immune* may be released from a quarantine for smallpox 12 days after a successful vaccination, provided they have been instructed, disinfected, and released to live elsewhere, and may then return to school.

Pennsylvania

[Pennsylvania Statutes, 1920]

SEC. 3605. Compulsory vaccination and revaccination of certain persons; rules regarding.—Said rules and regulations [of departments of health of first-class cities] shall cover and include:

* * * * *

(f) The admission and attendance of persons at public or private schools, hospitals and asylums, or any other public or private educational or charitable institutions, and the compulsory vaccination and revaccination of inmates thereof, and of persons attending the same, or employed therein as physicians, teachers, nurses, or in any other capacity.

SEC. 4007. Duties of health physician in second-class cities.—It shall be the duty of the physician of the bureau of health¹ [in second-class cities]:

* * * * *

Second. To keep at all times a sufficient supply of vaccine virus, and see that all persons, so far as he may have it in his power, are properly vaccinated, especially those in the vicinity of any person attacked by smallpox.

* * * * *

Fifth. * * * to perform such other duties * * * including the vaccination of the children in the public schools, or of others requesting him to do so * * *.

SEC. 4014. Compulsory vaccination; penalty; free vaccination of indigent persons.—The bureau of health¹ [in second-class cities] may take such measures as it may from time to time deem necessary to prevent the spread of smallpox, by issuing an order requiring all persons in the city, or any part thereof, to be vaccinated within such time as said bureau shall prescribe, and all persons refusing or neglecting to obey such order shall be liable to a fine of not less than \$5 nor more than \$25: *Provided*, It shall be the duty of the bureau of health¹ to

¹ Powers of bureau transferred to department of public health by later law. See section 3717 of Pennsylvania Statutes, 1920.

provide for the vaccination of such persons as are unable to pay for the same, at the expense of such city.

SEC. 4413. *Enforcement of vaccination.*—The said board of health [in third-class cities] shall have power, and it shall be their duty, * * * to enforce vaccination * * *.

SEC. 4422. *Free general vaccination.*—Said board [of health of third-class cities] may take measures and supply agents, and afford inducements and facilities for general and gratuitous vaccination * * * as in its opinion the protection of the public health may require; * * *.

SEC. 9038. *Vaccination of pupils required; vaccination certificates.*—It shall be the duty of all school directors, superintendents, principals, or other persons in charge of any public, private, parochial, or other school to refuse the admission of any child to any of said schools under their charge or supervision, except upon a certificate signed by a physician setting forth that such child has been vaccinated, and that a subsequent examination reveals a resulting cicatrix, indicating successful vaccination or that vaccination has been performed according to the rules and regulations promulgated by the commissioner of health, with the sanction and advice of the advisory board of the department of health, or that it has previously had smallpox. All certificates of vaccination shall be issued in accordance with the rules and regulations promulgated by the commissioner of health with the sanction and advice of the advisory board of the department of health.

[Pennsylvania Statutes Supplement, 1924]

SEC. 50a-1806. *Enforcement of vaccination laws.*—The [State] department of health shall have the power, and its duty shall be:

* * * * *
(c) To administer and enforce the laws of this Commonwealth with regard to vaccination * * *.

[Reg. Dept. of H., April 13, 1926]

SECTION 1. *Inspection and certification.*—Ten to fifteen days after vaccination the vaccinating physician shall inspect the site of vaccination and, if a typical vesicle or lesion has appeared, shall issue a certificate of successful vaccination. No certificate of successful vaccination shall be issued prior to the tenth day after vaccination and not at any time unless there is bodily evidence of a well-defined typical vesicle, lesion, or cicatrix of successful vaccination plainly visible to the naked eye.

SEC. 2. *Form of certificate.*—All certificates of successful vaccination shall be in the form prescribed by the secretary of health of the State department of health and shall state that the vaccination site was inspected subsequent to vaccination (not less than 10 days thereafter) and found to indicate a successful vaccination. (Form 75.)

SEC. 3. *Previous successful vaccination.*—Certificates confirming previous successful vaccination or previous smallpox may be issued by legally licensed physicians in the form prescribed by the secretary of health of the State department of health to children who show bodily evidence of a vaccination cicatrix or of smallpox cicatrices plainly visible to the naked eye. (Form 76.)

SEC. 4. *Preliminary admission to school.*—The department of health will countenance the admission to school of a child during the 10 to 15 day period which must elapse between the time of vaccination and the issuance of a certificate of successful vaccination; only, however, upon the presentation of a preliminary certificate signed by a legally licensed physician stating that an antismallpox vaccination has been performed and giving date of said vaccination. (Reverse of Form 75.)

SEC. 5. *Same.*—If, at the expiration of this 10 to 15 day period, a certificate of successful vaccination is not submitted the child must immediately be excluded from school; *Provided, however,* That if a second vaccination is at once made the child may remain in school until a second period of from 10 to 15 days has expired, whereupon exclusion shall be enforced unless a certificate of successful vaccination or an official temporary certificate of revaccination is submitted to the school authorities.

SEC. 6. *Unsuccessful vaccinations.*—When a child has been unsuccessfully vaccinated two or more times within the current school year, before said child may be admitted to school he or she shall be officially revaccinated, free of charge, by the authorized school medical inspector or school physician for the district, or by the county medical director of the State department of health.

A preliminary certificate may be issued at the time of this revaccination. Ten to fifteen days thereafter the vaccination site shall be inspected by the vaccinating official, and if a successful result is in evidence he will then issue a certificate of successful vaccination (Form 75) or an official temporary certificate (Form 75-A) if no successful result has been obtained. This official temporary certificate will admit the child to school for the current school year only.

(The school year is interpreted as extending from July 1 to June 30.)

SEC. 7. Physicians for official revaccinations.—Special school physicians may be appointed by the secretary of health of the State department of health for official revaccination of school children wherever deemed advisable.

SEC. 8. Revaccinations at opening of each school term.—At or before the opening of each school term children holding official temporary certificates of revaccination issued during the previous school term, and having failed to secure a successful vaccination result, must again be officially revaccinated by the official hereinbefore designated.

SEC. 9. Alleged physical unfitness for vaccination; first and second class school districts.—When it is claimed by the family physician that the physical condition of a child contraindicates vaccination, the child, in school districts of the first and second class, shall be referred to the official city bureau of health physician, who shall carefully examine said child and decide whether physical unfitness for vaccination exists. If the examining official finds a marked physical condition contraindicating vaccination an official temporary certificate of disability (Form 75-DX), conspicuously marked "Good for current school year only" shall be issued by said official authorizing the admission of the child to school for the current school year; otherwise the child shall be excluded from school until vaccinated.

SEC. 10. Third and fourth class school districts.—In school districts of the third and fourth class such child shall be referred to the authorized school medical inspector or school physician for the district, who shall make a careful examination and shall report the result of his examination to the county medical director of the State department of health on Form 75-C. The county medical director may examine the child if further examination seems advisable, and if his examination or the school medical inspector's report discloses a marked physical condition contraindicating vaccination a county medical director's temporary certificate of disability (Form 75-D), conspicuously marked "Good for current school year only," shall be issued authorizing the admission of the child to school for the current school year. If the report or personal examination does not indicate a marked physical condition contraindicating vaccination the county medical director shall require exclusion from school until the child has been vaccinated.

SEC. 11. Vaccination or renewal of temporary certificates of disability.—Before being admitted to school the following school year children holding temporary certificates of disability shall be vaccinated or present new temporary certificates of disability issued in accordance with the provisions of sections 9 and 10 of these regulations.

SEC. 12. Examination for vaccination scar.—The medical inspection and examination of school children shall hereafter include an examination for vaccination scars. The presence of a vaccination scar or cicatrix plainly visible to the naked eye shall be the conclusive evidence of a successful vaccination, and the absence of such a plainly visible vaccination scar or cicatrix shall be conclusive evidence that such person has not been successfully vaccinated as required by the law and the regulations of the department of health.

SEC. 13. Illegal or void certificates.—No certificate of successful vaccination or certificate of vaccination cicatrix or smallpox cicatrix shall be issued to pupils who bear no bodily evidence of a plainly visible vaccination scar or cicatrix or of well-defined cicatrices of smallpox, and any certificates so issued are declared void and the holders thereof must be excluded from school under the law and the regulations of the department of health. School medical inspectors shall advise the teacher of all pupils not possessing a plainly visible vaccination scar or cicatrix or smallpox cicatrices. Such pupils shall be notified and allowed 10 days' time in which to secure proper vaccination or revaccination. If vaccination, according to the law and regulations made thereunder, is not secured the teacher shall exclude the pupils from school immediately after the expiration of said 10-day period.

SEC. 14. Exclusion of pupils refusing examination.—Pupils refusing a complete medical examination as required by the directions of the secretary of health shall immediately be excluded by the school medical inspector, and after this exclusion the teacher shall not readmit such pupils until they present certificates

signed by said medical inspector stating that they have been examined and are free from any condition transmissible to others, and further stating whether or not they have been found to possess a scar or cicatrix of successful vaccination. If not successfully vaccinated, the usual 10 days shall be allowed in which to secure proper vaccination or revaccination, at the end of which time if not vaccinated or revaccinated according to the law and regulations made thereunder immediate school exclusion shall be enforced.

Repeal.—All previous rules and regulations of the department of health relating to vaccination against smallpox are hereby repealed.

[Reg. Dept. of H., September 21, 1923]

SEC. 4. * * *

6. *Removal of immune persons from premises where smallpox exists.*—Any person residing on the same premises with a case of smallpox, if his or her immunity to the disease can be established either by reason of a prior attack of the disease or successful vaccination, may, at the discretion of the health authorities, be permitted to remove from the premises, due precaution being taken to prevent the carrying of infection either on his person or clothing.

[Court decisions]

(Pennsylvania Supreme Court; Duffield *v.* Williamsport School District, 29 A. 742; 162 Pa. 476; 25 L. R. A. 152; decided 1894.) Where smallpox existed in a city, a resolution of the city school board, requiring vaccination as a condition of attendance of pupils at school, was upheld.

(Pennsylvania Supreme Court; Field *v.* Robinson, 48 A. 873; 198 Pa. 638; decided 1901.) A State law, which required persons in charge of schools to refuse the admission to school of unvaccinated children, was held constitutional.

(Pennsylvania Supreme Court; Stull *v.* Reber, 64 A. 419; 215 Pa. 156; 7 Ann. Cas. 415; decided 1906.) The holding in this case is the same as in Field *v.* Robinson, *supra*, the same statute being involved.

(Pennsylvania Supreme Court; Commonwealth ex rel. Carson *v.* Rowe, 67 A. 56; 218 Pa. 168; decided 1907.) A statute which required "all principals or other persons in charge of schools as aforesaid" to refuse the admission of unvaccinated children "to the schools under their charge or supervision" was held to impose no duty on directors of school districts, and a writ of mandamus, to compel the directors of a school district to exclude from school an unvaccinated child, was denied. The duty to exclude was held to be imposed on principals or teachers in charge of schools.

(Pennsylvania Supreme Court; Lee *v.* Marsh, 79 A. 564; 230 Pa. 351; decided 1911.) A statute required the exclusion from school of any child not presenting a physician's certificate setting forth that such child had been successfully vaccinated. "Vaccination" was held to mean "inoculation with the virus of cow-pox for the purpose of communicating that disease as a prophylactic against smallpox," and was held to be accomplished by inserting the virus under the skin. The administration of variolinum or vaccinum by the mouth was held not to be vaccination as that term was used in the statute. The use of a form of certificate prescribed by the State department of health, which form prevented ambiguity and required the certifying physician to use words in the same sense with which they were used in the statute, was held obligatory.

(Pennsylvania Supreme Court; Howard *v.* City of Philadelphia, 95 A. 388; 250 Pa. 184; L. R. A. 1916B 917; decided 1915.) A person, in order to be relieved of quarantine restrictions, submitted to free vaccination by a physician employed by a city board of health. Such person later brought an action for damages against the city, alleging that, due to negligence in performing the vaccination, it had been necessary to amputate one of his limbs. The city was held not liable for the negligence of such physician, for the reason that it was engaged in the performance of a governmental function.

(Pennsylvania Supreme Court; Commonwealth ex rel. Schaffer *v.* Wilkins, 115 A. 887; 271 Pa. 523; decided 1922.) The majority of the directors of a local school district gave orders, against the protests of the minority and in violation of a statute requiring that pupils be vaccinated before admission to school, that all children of school age should be admitted to the public schools in the said district. By reason thereof some unvaccinated children had been admitted to school. It was held that the directors, even though punishable criminally for

a violation of the statute requiring vaccination of pupils, could be compelled by mandamus to exclude unvaccinated children from the schools.

For decisions of the Pennsylvania Superior Court, see the following:

Lyndall v. High School Committee, 19 Pa. Superior Ct. 232, decided 1902.

Commonwealth v. Aiken, 64 Pa. Superior Ct. 96, decided July 18, 1916.

Commonwealth v. Gillen, 65 Pa. Superior Ct. 31, decided November 2, 1916.

Commonwealth v. Wilkins, 75 Pa. Superior Ct. 305, decided March 5, 1921.

Commonwealth v. Butler, 76 Pa. Superior Ct. 113, decided March 5, 1921.

Philippine Islands

[Public Laws, act 2711]

SEC. 938. Systematic vaccination of inhabitants.— * * * Its [the Philippine Health Service's] general powers and duties shall extend to and comprehend, among other things:

* * * * *

(f) The effectuation, at regular intervals or from time to time as conditions may require, of systematic inoculations of the people of the country by the use of virus, serums, or prophylactics.

* * * * *

SEC. 996. Vaccinations in municipalities.— * * * Subject to the provisions of law with reference to public vaccinations, he [the president of a municipal board of health] shall conduct such vaccinations for the people of his municipality.

* * * * *

SEC. 1006. Vaccinations in sanitary divisions.— * * *

(h) He [the president of a sanitary division] shall supervise, and, when so directed, he shall carry out the work of vaccination * * * of his division.

* * * * *

SEC. 1020. Compulsory vaccination in Manila.—The ordinances drafted by the director of health for the city of Manila may provide for—

* * * * *

(j) * * * compulsory inoculation of persons in order to prevent the occurrence or spread of any such [dangerous communicable] diseases; * * *.

SEC. 1051. Vaccine virus to be used.—Vaccination shall be effected by the use of vaccine virus. The inoculation of any human being with smallpox virus or smallpox lymph, either directly or indirectly, shall be unlawful.

SEC. 1052. Annual public vaccination.—Beginning in the first week of January of each year the provincial and municipal authorities, or other local authorities, shall cause a thorough public vaccination to be accomplished in their respective jurisdictions.

Each municipal or township council or other local authority shall provide and furnish a suitable room or rooms for carrying on the work of vaccination within its respective jurisdiction.

SEC. 1053. Employment of special vaccinators temporarily.—With the approval of the department head, the director of health may temporarily employ special vaccinators to render service in places or communities where vaccination is necessary to prevent the spread of smallpox, if the local authorities are unable to meet the sanitary requirements.

SEC. 1054. Compulsory vaccination; done free.—Every person in the Philippine Islands shall submit to vaccination when thereunto lawfully required, unless he shall furnish satisfactory evidence either by a certificate from a physician or vaccinator, or otherwise, to the effect that he is immune from the disease of smallpox. Such vaccination shall be performed gratis.

SEC. 1055. Vaccination certificates; record of vaccinations.—A vaccinator shall furnish a certificate to each person vaccinated by him, showing the date of vaccination and such other facts pertinent thereto as may be specified in forms prescribed by the director of health. It shall also be his duty to make an official record of all vaccinations performed by him containing such data as shall be prescribed by said director.

SEC. 1056. Vaccination of children.—Every parent, guardian, or person having charge of one or more children over 3 months of age shall see that they are presented for examination and vaccination at such place and time as may be specified by proper authority, and that they are returned on the eighth day after such presentation to said place so that the result of the vaccination may be verified.

SEC. 1057. Same.—The presidents, principals, boards of directors, managers, or any person or persons having charge of universities, colleges, academies, seminaries, public or parochial schools, orphanages, or asylums, or other places where children are educated, reared, or cared for, shall present such children for vaccination within said institution at such times as may be specified by proper authority.

* * * * *

SEC. 1879. Vaccine, sale by bureau of science.—The bureau of science, with the approval of the proper head of the department, may sell to the public or to public functionaries for official use * * * vaccine virus, * * *

SEC. 1880. Vaccine, charge for; furnishing to Philippine Health Service.—The charge for virus, serums, and prophylactics, when furnished for official use, shall be fixed at the actual cost of producing or securing and furnishing the same; but these supplies, if manufactured by the serum laboratory, shall be furnished to the Philippine Health Service in such quantity as the director of health shall deem necessary for the work of said Philippine Health Service, when the director of the bureau of science can furnish the same, without unduly depleting the stock necessary to the continuation of the work of the laboratory.

* * * * *

SEC. 2693. Refusal to be vaccinated, etc., penalty.—Any person liable to vaccination who shall refuse to submit to the operation or shall evade the same shall, upon conviction, be punished by a fine of not more than 100 pesos.

SEC. 2694. Parents, etc., penalty applicable to.—Any parent, guardian, or other person having charge of any child over 1 month old who shall fail to present the same for vaccination, as required by law, or who shall fail to return any such child to the vaccinating officer for verification of the effect of the operation, or for later vaccination, as the case may be, shall be fined 10 pesos for each offense.

[Public Laws, act 3073]

SECTION 1. Biologic products, regulation of sale, etc.; labeling.—From and after 6 months after the promulgation of the regulations authorized by section 4 of this act no person, firm, or corporation shall sell, barter, or exchange, or offer for sale, barter, or exchange in the Philippine Islands, or send, carry, or bring for sale, barter, or exchange from any foreign country into the Philippine Islands or from the Philippine Islands into any foreign country any virus, therapeutic serum, toxin, antitoxin, or analogous product applicable to the prevention and cure of disease in man, unless (a) such virus, serum, toxin, antitoxin, or analogous product has been propagated and prepared by any person, firm, or corporation holding an unsuspended and unrevoked license issued by the secretary of public instruction on recommendation of the director of health, as hereinafter authorized, to propagate and prepare such virus, serum, toxin, antitoxin, or analogous product for sale in the Philippine Islands, or for sending, bringing, or carrying from or to any foreign country; (b) unless each package of such virus, serum, toxin, antitoxin, or analogous products is plainly marked with the proper name of the article contained therein, the name, address, and license number of the manufacturer, and the date beyond which the contents can not be expected beyond reasonable doubt to yield their specific results: *Provided*, That the suspension or revocation of any license shall not prevent the sale, barter, or exchange of any virus, serum, toxin or antitoxin, or analogous product aforesaid which has been sold and delivered by the licensee prior to such suspension or revocation, unless the owner or custodian of such virus, serum, toxin, antitoxin, or analogous product as aforesaid has been notified by the secretary of public instruction not to sell, barter, or exchange same.

SEC. 2. False labeling, relabeling, etc., prohibited.—No person shall falsify, relabel, or remark any package or container of any virus, serum, toxin, antitoxin, or analogous product aforesaid; nor alter any label or mark on any package or container of any virus, serum, toxin, antitoxin, or analogous product aforesaid so as to falsify such label or mark.

SEC. 3. Inspection of establishments.—Any officer, agent, or employee of the bureau of health duly authorized by the director of health for that purpose, may, for the safeguarding of the public health, enter and inspect any establishment for the propagation and preparation of any virus, serum, toxin, antitoxin, or analogous product aforesaid for sale, or exchange in the Philippine Islands, or to be sent, carried, or brought from the Philippine Islands into any foreign country or from any foreign country into the Philippine Islands.

SEC. 4. Board created; promulgation of regulations governing licenses; issue, etc., of licenses.—A board is hereby created, composed of the secretary of public

instruction as chairman, and the director of health and the director of bureau of science as members, with authority to promulgate from time to time such rules as may be necessary in the judgment of said board to govern the issue, suspension, and revocation of licenses for the propagation and preparation of viruses, serums, toxins, antitoxins, and analogous products, applicable to the cure of disease of man and intended for sale in the Philippine Islands or any other country: *Provided*, That all licenses issued for the propagation and preparation of any virus, serum, toxin, antitoxin, or analogous product aforesaid imported for sale, barter or exchange in the Philippine Islands shall be issued upon condition that licenses [licensees] shall permit the inspection of the establishments where said articles are propagated and prepared in accordance with section 3 of this act. Applications in accordance with the provisions of this act shall be submitted to the secretary of public instruction, who is hereby authorized and directed to issue, suspend, or revoke, upon recommendation of the director of health, licenses issued in accordance with this act.

SEC. 5. Interference with officials prohibited.—No person shall interfere with any officer, agent, or any employee of the Philippine government in the performance of any duty imposed upon him by this act, or by regulations made by authority thereof.

SEC. 6. Penalty.—Any person who shall violate, or aid or abet in violating any of the provisions of this act shall be punished by a fine not exceeding 1,000 pesos, or by imprisonment not exceeding 1 year, or by both such fine and imprisonment in the discretion of the court.

Porto Rico

[Acts of 1912, No. 81]

SEC. 23. Vaccine, preparation.— * * * It shall devolve upon the [biological] laboratory [of the insular department of health] to prepare vaccine lymphs, virus, and serum; * * *

SEC. 29. Compulsory vaccination.—That the inoculation of vaccine virus be, and is hereby, made obligatory and binding upon all the inhabitants of the island during such period, and under such form and interval of time, as shall be determined by the director of sanitation, the inoculation of any other organic, prophylactic, or therapeutic product in cases of epidemic being also obligatory: *Provided*, That whenever it is deemed necessary by the director of sanitation to use virus or serum to combat any epidemic disease, save smallpox, the express approval of the insular board of health shall be necessary.

[Sanitary Regulations, No. 43]

SEC. 5 Vaccination history in reporting smallpox.— * * * (f) That if the disease is, or [is] suspected to be, smallpox, the report [of a case] in addition shall state * * * whether the patient has been vaccinated or not, number of times vaccinated and date of last vaccination.

* * * * *
SEC. 6. Powers of sanitary official as to vaccination of attendants and persons living with patient.—As soon as the report of a transmissible disease shall be received, the sanitary official * * * shall take what precautions may be necessary to avoid the spread of the same; being authorized to treat the patient in matters concerning sanitation, according to the cause of the disease and the conditions surrounding the patient, as to * * * vaccination or any other preventive treatment of the persons who attend and live with him; * * *

SEC. 25. Contacts, vaccination of.— * * * In cases of smallpox or varioloid the official of sanitation shall order the vaccination of all persons who have come in more or less immediate contact with the patient, with vaccine lymph, in case they have not already been vaccinated. * * *

[Sanitary Regulations, No. 46]

1. Vaccination defined.—For the purposes of this regulation, vaccination shall be understood to be the transference to a human being of the virus from the irritation on the skin of a susceptible animal suffering from vacuna or cowpox.

2. Compulsory vaccination and revaccination.—In compliance with the sanitation law now in force which provides that vaccination and revaccination shall be obligatory upon all the inhabitants of the island of Porto Rico, this operation

shall be carried out at the time and under the circumstances hereinafter prescribed.

3. *Vaccination only done by whom; vaccinator's license.*—Vaccination shall be practiced only by physicians, practicantes, and nurses or by persons outside the medical profession who have obtained a vaccinator's license from the director of sanitation. This license shall only be extended to the interested person, who shall have demonstrated his competence by a practical examination in vaccination before a competent board appointed by said director of sanitation.

4. *Reports of vaccinations.*—Every physician, practicante, nurse, or vaccinator shall be obliged to send to the office of the service of sanitation in the town in which he practices a list of the persons he has vaccinated, stating whether the operation has produced the satisfactory result desired.

5. *What vaccine to be used.*—For vaccination only fresh, dry, or glycerinated virus or live pulp shall be used, obtained from bovine vacuna or cowpox and prepared by some reputable scientific organization and guaranteed to contain no noxious bacteria.

6. *Mode of vaccination.*—The only mode of vaccination employed shall be by puncture, incision, or scraping by means of sterilized needles, glass, or ivory points or scalpel, taking care not to cause the flow of blood or unnecessary irritation of the skin. The scarification should not be crossed nor should dry points be used.

7. *Examination as to result of vaccination.*—The persons who have been vaccinated by the officials of the sanitation service shall present themselves from the sixth to the tenth day after their vaccination at the office appointed for this purpose in each locality for examination and verification of the result obtained.

8. *Vaccination during infancy.*—Every child living in Porto Rico shall be vaccinated during the period from the age of 3 months to 1 year. If this first vaccination is not successful it shall be repeated at the end of a month and if the second operation is not successful it shall be repeated at the end of the year. Children that have had smallpox during this period need not be revaccinated.

9. *Revaccination of children.*—At the age of 7 years every child, whether having been successfully vaccinated or not, shall be revaccinated, and if this vaccination is not successful, it shall be repeated at the end of a month and if still unsuccessful the child shall be revaccinated from its ninth to tenth year.

10. *Revaccination of older persons.*—Those persons not yet 20 years of age who have been successfully vaccinated shall be obliged to be revaccinated 8 years after the last vaccination, and if this is not successful it shall be repeated at the end of a month.

11. *Same.*—Persons over 25 years of age shall only be obliged to revaccinate on the outbreak of smallpox in any part of the island which appears to threaten an epidemic.

12. *School teachers, etc., vaccination certificates.*—The teachers, employees, and caretakers of the public and private schools of the island of Porto Rico shall possess a certificate of vaccination or revaccination of a date not previous to five years on taking charge of their work.

13. *Vaccination of pupils required.*—Every child who desires to attend a public or private school shall present a certificate of vaccination or revaccination, without which he shall not be admitted.

14. *Employees, vaccination certificates.*—All employees of railroads, tramways, and vehicles at the service of the public, all stevedores of steam and sailing vessels, also proprietors and clerks of hotels, restaurants, and other commercial establishments, the managers and operatives of workshops and factories shall be provided with said certificate according to his age, which guarantees his having been vaccinated or revaccinated as the case may be.

15. *Policemen, vaccination certificates.*—The members of the police force shall possess a certificate of having been duly vaccinated or revaccinated according to the provisions of this regulation, and those persons who desire to enter the police force shall not be admitted until they shall have fulfilled this requirement.

16. *Certain other persons, vaccination certificates.*—Inspectors, internal-revenue appraisers, and other employees whose occupation brings them in contact with the public shall possess a certificate of vaccination or revaccination in accordance with the provisions of this regulation.

17. *Vaccination on outbreak of smallpox.*—As soon as the existence of cases of smallpox shall be verified in any house or any locality of the island, all persons residing in said house or locality, no matter of what age, shall be vaccinated or revaccinated unless it can be proved to the entire satisfaction of the sanitary

authorities that they have been successfully vaccinated or revaccinated within a period of three years prior to the outbreak of smallpox.

18. *Vaccinators and vaccine, providing of.*—The director of sanitation shall provide a sufficient number of vaccinators and the necessary amount of vaccine virus to constantly maintain vaccination and revaccination in normal times of the people living in the island of Porto Rico: *Provided*, In case of epidemic the number of vaccinators and amount of vaccine virus shall be increased according to the necessities of the moment.

19. *Vaccine, keeping of supply; procurement.*—Until such a time as there shall be a vaccine station established in the island of Porto Rico, it shall be the duty of the service of sanitation to be provided with a sufficient quantity of vaccine virus, procured at some reputable station and guaranteed by the Government of the United States.

20. *Vaccine, preparation and distribution by vaccine station.*—As soon as the vaccine station shall be established, it shall prepare and distribute the virus necessary for all the island. In this case as well as when the virus is obtained by other means, the service of sanitation shall supply it, free of cost, in such conditions regulated by this service as shall guarantee its proper use and the keeping of statistics of vaccination.

21. *Record of vaccination of inhabitants.*—The service of sanitation shall keep a record of the vaccination and revaccination of the inhabitants of the island of Porto Rico in which shall be stated the names, in alphabetical order, ages, residences, and other data considered necessary to prove that the provisions of this regulation have been complied with.

22. *Vaccination by private physicians, etc.*—Those persons who desire to avail themselves of the services of physicians, practicantes, nurses or licensed vaccinators, not connected with the service of sanitation for vaccination, may do so freely. In such cases the vaccinator has the right to charge for his services.

23. *Vaccine, obtaining by physicians, etc.*—Physicians, practicantes, and nurses may obtain the necessary vaccine virus from the service of sanitation by means of an application signed by the interested person, in which is stated the number of persons intended to be vaccinated. These persons are under the obligation of reporting to the office of sanitation the names, ages, etc., of the persons vaccinated and revaccinated and the result obtained: *Provided*, That physicians may use, if they so prefer, vaccine procured from any accredited station.

24. *Vaccination certificates, who entitled to.*—All persons who have complied with the provisions of this regulation are entitled to a certificate, free of charge, from the service of sanitation, stating that they have been vaccinated or revaccinated.

25. *Annual vaccination time.*—Every year the service of sanitation shall fix a time in which vaccination shall take place.

26. *Who must comply with requirements.*—All persons of full age, parents or guardians of minors, also the heads of public and private institutions are obliged to comply with these obligations.

27. *Penalty.*—Any violation of these regulations shall be punishable as provided under section 33 of an "Act to reorganize the sanitation service," approved March 14, 1912.

28. *Repeal.*—All municipal ordinances in conflict herewith are hereby repealed in accordance with section 18 of an "Act to reorganize the sanitation service."

[Sanitary Regulations, No. 75]

SECTION 1. Biologic products, license for sale of.—No person, firm, syndicate, corporation, proprietor, or administrator of a pharmacy or drug store in the island of Porto Rico, shall offer for sale any biological product without previously having obtained a license from the insular department of health.

SEC. 2. Keeping at certain temperature.—All biological products kept for public sale by any person, firm, syndicate, corporation, proprietor, or administrator of a pharmacy or drug store in the island of Porto Rico, shall be stored in refrigerators, the temperature of which shall not be greater than 12.5° C. or 55° F.: *Provided*, That all biological products that are kept outside of the refrigerator shall be seized according to the provisions of regulation No. 53.

SEC. 3. Inspection of refrigerators.—Refrigerators designed for the storing of these biological products shall be open to inspection, for investigation purposes, by any inspector of the insular department of health from 6 a. m. to 10 p. m.

SEC. 4. Certified thermometers for health inspectors.—The insular department of health shall provide each inspector engaged in this work, with a certified ther-

mometer, the mercurial column of which shall be visible and the degree of temperature marked, easy to read; and said inspector shall be duly instructed in the use of it.

SEC. 5. Confiscation of biologic products because of higher temperature than allowable.—If the sanitary inspector should find, at any moment and during the investigation, that the refrigerator used for the keeping of biological products has a temperature greater than 12.5° C. or 55° F., this would be sufficient reason for the said inspector to proceed to the confiscation, as provided above in section 2, of all the biological products found, at that moment, in the refrigerator.

SEC. 6. Revocation of license.—The insular department of health shall revoke all licenses granted pursuant to this regulation, to any person, firm, syndicate, corporation, proprietor, or administrator of a pharmacy or drug store, incurring in a second offense; and this person, firm, syndicate, corporation, proprietor, or administrator of a pharmacy or drug store shall not offer for sale any biological product for a period of not less than six months.

SEC. 7. Same.—The insular department of health shall revoke definitely the license of any person, firm, syndicate, corporation, proprietor, or administrator of a pharmacy or drug store, violating these rules and regulations for a third time; and shall direct a communication to all physicians of the island of Porto Rico notifying them that such person, firm, syndicate, corporation, proprietor, or administrator of a pharmacy or drug store, is prohibited from offering or exhibiting for sale any biological product.

SEC. 8. Posting of license.—The license issued by the insular department of health authorizing the selling of biological products shall be so conspicuously placed over the refrigerator used for the storing of these products that it may readily be seen at all times.

SEC. 9. Penalty.—The infringement of any of the dispositions of this regulation shall be punished as provided by article 33 of "An act to reorganize the service of sanitation," approved March 14, 1912.

Rhode Island

[General Laws, 1923, ch. 77]

(1049) **SEC. 9 [as amended by ch. 644, acts of 1925]. Vaccination of pupils required; unfit subjects.**—No person shall be permitted to attend any public or private school in this State as a pupil, unless such person shall furnish to the administrative head of such school a certificate of a licensed physician that such person has been successfully vaccinated as a protection from smallpox, or a certificate of a licensed physician granted for cause stated therein, that such person is not a fit subject for vaccination: and every administrative head of any public or private school shall keep on file all said certificates.

[General Laws, 1923, ch. 154]

(2206) **SEC. 28. Free vaccination.**—The town councils in the several towns shall provide annually for the gratuitous vaccination of the inhabitants thereof.

(2207) **SEC. 29. Vaccinating physicians.**—The town councils shall contract with and provide a suitable number of physicians to vaccinate as aforesaid; and order the town treasurers of the several towns respectively to pay them such compensation as may be previously agreed upon; and the said physicians shall give due and reasonable notice of the time and place of meeting for the purpose of vaccination.

(2208) **SEC. 30. Record of vaccinations.**—Such physicians, as soon after fulfilling said contract as may be convenient, shall deposit in the town clerk's office a book, in which shall be by them respectively recorded, in a fair and legible hand, the name and age of every person by them vaccinated as aforesaid, and also such other remarks and observations as they may deem useful.

(2209) **SEC. 31. Keeping of vaccination records; fees for searching or for copies.**—Such town clerks shall safely keep said books for the accommodation of such physicians and others, without any compensation, and deliver the same over to their successors; but they may charge lawful fees for searching the same or for any copies.

South Carolina

[Code of Laws, 1922, vol. 3]

2320. Compulsory vaccination authorized; unfit subjects; free vaccination of indigent persons; penalties.—The city or town council of every incorporated city or

town in this State may provide by ordinance for the vaccination and revaccination with fresh bovine virus, under the direction of the health authorities of said cities or towns, or of some competent physician appointed for that purpose, of all the citizens and residents of such cities and towns, excepting such persons as obtained the certificate of a reputable physician that vaccination would be dangerous to health. Such ordinances shall establish the periods of time, satisfactory to the State board of health, within which vaccination and revaccination shall be required; shall provide for vaccination and revaccination of indigent and pauper individuals at the expense of the city or town; and shall establish and provide penalties by quarantine and otherwise of such persons as are convicted of neglect or refusal to obey the provisions of such ordinances.

2321. Powers and duties of State board of health regarding vaccination; supplying vaccine; charge for vaccination.—The State board of health shall have general direction and supervision of vaccination and revaccination in all cities and towns, and shall, in case of threatened epidemic of smallpox in any such community, and of insufficient ordinances therein, request the passage of the city or town council of a new ordinance, framed in accordance with the provisions of section 13 [2320] above. The State board of health shall have full and absolute control in matters of vaccination and revaccination of all persons within this State, who do not reside within the limits or jurisdiction of any incorporated city or town, and shall promulgate rules and regulations which shall have the force and effect of law for vaccination and revaccination of such persons under the supervision and direction of agents appointed by the said board, and which shall contain provisions similar to those of section 13 [2320] above, applying to ordinances, but such requirements may be modified by the State board of health in case of sparsely settled communities so as only to apply during apprehended danger of an epidemic of smallpox; and the necessary expense of such vaccination or revaccination shall be paid by the county commissioners of the county within which the persons treated reside, and a bill or certificate of the services performed endorsed and approved by the State board of health, shall be prima facie evidence of the existence and value of such services. The State board of health shall at all times keep in stock a supply of fresh bovine virus and supply the same to cities, towns, and individuals without cost, that the charge for each vaccination under this section shall not exceed 10 cents.

2322. Enforcement of vaccination in incorporated cities and towns by State board of health under certain circumstances.—If the city or town council of any incorporated city or town shall neglect or refuse to pass an ordinance in accordance with the provisions of section 13 [2320] above, it shall be the duty of the State board of health to promulgate rules and regulations for the vaccination of the citizens and residents of such incorporated city or town, which rules and regulations shall have the force of an ordinance, and the State board of health shall have the power, and it is hereby made its duty, to enforce obedience to such rules and regulations by the promulgation and enforcement of proper quarantine regulations whenever the said board shall deem it necessary for the preservation of the public health from possible danger of a threatened epidemic of smallpox, at the cost and expense of such incorporated city or town. In case such incorporated city or town shall refuse or neglect to reimburse the State board of health for all of the costs, charges, and expenses incurred under this section, including the cost of any necessary quarantine, then the State board of health is hereby empowered to collect the same by suit in any court of the State having jurisdiction from such incorporated city or town, and a statement of such costs and expenses by the State board of health shall be prima facie evidence of the amount of said costs and expenses.

2323. Vaccination of pupils required.—No superintendent of any institution of learning, and no school board, or principal of any school in this State, shall admit as a pupil any child or person who can not produce satisfactory evidence of having been vaccinated so often as the ordinance of the city or town in which the school is located, or if not located within the city or town, so often as the rules and regulations of the State board of health may direct.

2324. Duty of parents, etc., as to vaccination of children.—It is hereby made the duty of every parent, guardian, or other person, charged with the care of or responsibility for any child, to see that such child is vaccinated so often as may be directed by ordinance of the incorporated city or town in which such child resides, or if not a resident of an incorporated city or town, so often as the rules and regulations of the State board of health may direct.

2327. Right to enforce compulsory vaccination denied certain local boards of health.—* * * *Provided*, That nothing herein contained shall be construed

as giving to local boards [of health] outside of incorporated towns and cities the right to enforce compulsory vaccination.

2333. Enforcement of vaccination by State board of health; vaccination or quarantine of smallpox contacts.—The State board of health and its duly appointed representative shall have power to order and enforce the vaccination of all such persons as it may consider necessary for the preservation of the public health: *Provided*, That any person who has been exposed to the contagion and refuses vaccination shall not be forcibly vaccinated, but in the discretion of the State board of health, or their agent, be quarantined and guarded until the period of incubation of the threatened disease has passed.

2338. Enforcement of vaccination in certain places.—The said board of health [of an incorporated city, town, or village] shall have power and it shall be their duty * * * to enforce vaccination, * * *

2351. Vaccination may be required as condition of school attendance in cities or towns.—Any board of education, school trustees, or any other body having control of any of the schools, [in any city or town] * * * may also prohibit the entrance into or attendance at any school of all unvaccinated persons who have not had the smallpox. The said board of control or trustees may also require vaccination of any or all teachers, scholars, and attendants if a case of smallpox have [sic] occurred in the city or town.

2359. Enforcement of vaccination in certain places.—The said local boards of health [of all unincorporated towns and villages whose population is not less than 100] shall have power, and it shall be their duty, * * * to enforce vaccination, * * *

2501. Vaccination of persons on vessels.—* * * And it shall be the duty of the [maritime] quarantine officer or his deputies, whenever necessary for the public health, to cause the persons on board of any vessel to be vaccinated.

2510. Power of maritime quarantine officer to vaccinate quarantined persons.—* * * and he [the maritime quarantine officer] shall have power: * * * 6. To cause all persons under quarantine to be vaccinated, when he deems it necessary for the preservation of the public health. * * *

[Sections 4492 to 4496, inclusive, of the Code of Laws, 1922, vol. 3, contain the same provisions regarding vaccination as do sections 2320 to 2324, inclusive, of said volume.]

[Code of Laws, 1922, vol. 2]

451. Penalty.—Any officer or person who shall fail, neglect, or refuse to comply with any provisions of sections 2316 to 2325 [sections 2320 to 2324, volume 3], Civil Code, inclusive, applicable to such officer or person, shall be guilty of a misdemeanor, [and], on conviction thereof in a court of competent jurisdiction shall be fined in the sum of \$100, or be imprisoned for 30 days.

[Reg. Bd. of H., August 20, 1912]

RULE 7. Vaccination of pupils required.—No child shall be admitted to any school in South Carolina unless successfully vaccinated within the last 5 years.

[Reg. Bd. of H., August 20, 1912]

RULE 8. Vaccination of prisoners.—All prisoners admitted to any jail or other penal institutions in South Carolina must be vaccinated, unless they have been vaccinated in the last two years. * * *

[Court decision]

(South Carolina Supreme Court; *Mathias v. Lexington County*, 60 S. E. 970; 79 S. C. 402; decided 1908.) A statute relating to vaccination provided that the expense thereof should be paid by counties and also provided a maximum charge of 10 cents for each vaccination. The statute also gave the State board of health power to promulgate regulations concerning vaccination, and one of the regulations allowed county agents 15 cents for each vaccination which they themselves performed. Several hundred vaccinations by a county agent had been paid for by the county at the rate of 10 cents each, and, in a claim against the county for the extra 5 cents allowed by the State board of health regulation for each vaccination, it was held that the regulation was subordinate to the express limitation of the statute and that the county was not required to pay the additional claim.

South Dakota

[Revised Code, 1919]

SEC. 7667 [as amended by ch. 317, acts of 1919]. *Biologic products, regulations to control distribution of.*—Such [State] board [of health] * * * shall have the power:

* * * * * 4. To adopt, alter, and enforce * * * regulations * * * by which said board may * * * control * * * any of the following matters:

(k) The distribution by the State board of health of biological products to members of the county boards of health, which products shall be used for the cure and prevention of diphtheria and other communicable diseases.

SEC. 7691. *Compelling vaccination by physical force unlawful.*—It shall be unlawful for any board, physician, or person to compel another by the use of physical force to submit to the operation of vaccination with smallpox or other virus.

SEC. 7692. *School attendance of certain vaccinated children.*—No person shall prevent a child of school age who furnishes a physician's certificate of successful vaccination with smallpox virus, within five years, from attending public school.

SEC. 7693. *Penalty.*—Any person who shall violate any provision of this article shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine not exceeding \$100 or by imprisonment in the county jail not exceeding 30 days or by both such fine and imprisonment.

[Reg. Bd. of H.]

No. 70. Placarding in smallpox cases.—* * * he [the superintendent of the county board of health] shall also at once securely fasten in a conspicuous place upon the front of the dwelling in which the smallpox exists, a placard displaying the name "Smallpox" and stating that persons having smallpox, or who have not recently been vaccinated or previously had smallpox will not be permitted to leave the premises. The placard must be kept on the house until at least 14 days after the appearance of the disease in the last case in said family or household. * * *

Contacts, vaccination or quarantine.—All persons who have been exposed to smallpox shall be vaccinated unless they have previously had smallpox or have been successfully vaccinated within seven years. All persons refusing to be vaccinated shall remain isolated for a period of 14 days.

[Court decision]

(South Dakota Supreme Court; *Glover v. Board of Education of Lead*, 84 N. W. 761; 14 S. D. 139; decided 1900.) Where there was imminent danger of a smallpox epidemic in a city and resolutions and orders of the State, county, and city boards of health required the exclusion of unvaccinated pupils from the public schools, a regulation of the city board of education, excluding temporarily unvaccinated children from such schools, was upheld.

Tennessee

[Thompson's Shannon's Code, 1918]

SEC. 3116a-7. Compulsory vaccination.—Municipal and county health officers or municipal and county boards of health may adopt such measure for the general or local vaccination of the inhabitants of their respective jurisdiction as they shall deem proper and necessary, and whenever necessary vaccinate such inhabitants to prevent the introduction or to arrest the progress of smallpox without being authorized or ordered by the State board, and the expenses in whole or in part of such general or local vaccination shall, upon their order, be paid out of the city or county funds, as the case may be.

SEC. 3116a-8. Penalties; unfit subjects; fraudulent certificates.—Every person who shall refuse to be vaccinated or prevent a person under his or her care and control from being vaccinated on application being made by the said health officer or said board of health or by a physician employed by said health officer or said board of health for that purpose, unless in the written opinion of another physician it would not be prudent on account of sickness, shall be fined not more

than \$5 for each offense, and any physician fraudulently giving a certificate of sickness or of vaccination to prevent vaccination, shall be fined not less than \$25 nor more than \$50.

[Reg. Dept. of Public H.]

SMALLPOX.—* * *

8. *Contacts, handling of; who considered immune.*—The handling of contacts of smallpox will depend upon whether they are immune or nonimmune. In order to be considered immune a person must have had the disease or must have been successfully vaccinated with fresh cowpox vaccine within five years, and evidence of same must be satisfactory to the health officer, or must have a successful vaccination within 24 hours following first exposure.

9. *Nonimmune contacts.*—Nonimmune contacts in the same household not vaccinated following exposure must be quarantined in the same manner as a case, and quarantine must be continued for 16 days from date of last exposure.

10. *Same.*—Nonimmune contacts vaccinated more than 24 hours following first exposure may be disinfected and released to live elsewhere, provided they are kept under daily medical inspection for 16 days from date of last exposure.

11. *Immune contacts.*—Immune contacts in the household may be disinfected and released to live elsewhere, but if they continue to live in the same household they must remain in quarantine until the case is released.

12. *Contacts among pupils.*—When a smallpox case has attended a school within four days of the date of eruption all pupils must be presumed to be contacts and must be vaccinated and inspected daily to determine success of the vaccination and to detect early symptoms or, if vaccination is refused, they must be quarantined for 16 days from date of last exposure.

13. *General vaccination.*—In the control of smallpox general vaccination of all nonimmune persons should be urged. County boards of health are authorized by statute to require and provide for local or general vaccination. This action by the county board of health should be recommended by the health officer whenever the disease appears in a community.

14. *Smallpox prevention.*—Of all infectious diseases prevalent in the United States smallpox is the [most?] completely preventable by public-health measures. Its prevention depends on general vaccination, on the thoroughness and promptness of isolation of cases, and on the control of contacts. Each health department should have constantly on hand a small supply of smallpox vaccine shipped directly from manufacturing laboratory, stored below freezing, and used not more than 24 hours from this cold storage.

Texas

[Revised Civil Statutes, 1925]

ART. 4477. * * *

RULE 19. Isolation of unvaccinated contacts.—* * * In the event of the disease having been smallpox, all persons exposed shall be isolated for 18 days from the time of last exposure unless successfully vaccinated.

RULE 28. Reopening of school where smallpox case has been present.—In the event of the aforementioned disease being smallpox and in the case the board of trustees having passed a regulation requiring a successful vaccination of all teachers and pupils, the school [wherein a child suffering from smallpox has been present] may be reopened immediately after the disinfection and cleaning [under the supervision of the local health authority], and all teachers and pupils who have been successfully vaccinated may return; otherwise the school shall be kept closed 18 days or until the local health authority directs otherwise.

[Court decisions]

(Texas Court of Civil Appeals; *McSween v. Board of School Trustees of City of Fort Worth*, 129 S. W. 206; 60 Tex. Civ. App. 270; decided 1910.) Where a pupil was taken ill with what was believed to be smallpox, an order of the city board of school trustees, excluding temporarily from the public schools all pupils who refused to be vaccinated, unless already successfully vaccinated, was upheld.

(Texas Court of Civil Appeals; *Zucht v. San Antonio School Board*, 170 S. W. 840; decided 1914.) Where existing conditions in a community with reference to smallpox constituted a menace to the public health, a regulation of a city school board, requiring vaccination of pupils and teachers as a condition to admittance to the public schools, was held to be reasonable.

(Texas Court of Civil Appeals; *Staffel v. San Antonio School Board of Education*, 201 S. W. 413; decided 1918.) Where there was smallpox in a city, a resolution of the city board of education, instructing superintendents and teachers of the public schools to refuse admission thereto and to prevent further attendance thereof of children not complying with an ordinance of the city prohibiting the attendance at school of unvaccinated persons, was held to be a reasonable exercise of power on the part of the board.

(Texas Supreme Court; *City of New Braunfels v. Waldschmidt*, 207 S. W. 303; 109 Tex. 302; decided 1918.) Where there was smallpox in a city, an ordinance which required vaccination as a prerequisite to school attendance was held valid.

(Texas Court of Civil Appeals; *Abney v. Fox*, 250 S. W. 210; decided 1923.) Upon the outbreak of two cases of smallpox in a school district, the school board of the district passed a resolution requiring all pupils to be vaccinated against smallpox by scarification. One of the pupils was immunized by the homeopathic internal method of vaccination, but the school board refused to admit her to school because she had not been vaccinated by scarification. It was held that "the school trustees had the right which they exercised, to prescribe vaccination as a prerequisite to attendance upon the school; and that the term 'vaccination,' as used and intended by that body, meant scarification and the injection of cowpox into the human system, and did not include the taking of medicine internally or any other mode of prevention of smallpox."

Utah

[Compiled Laws, 1917]

2763. Compelling vaccination or making vaccination a condition precedent to school attendance unlawful.—Hereafter it shall be unlawful for any board of health, board of education, or any other public board, acting in this State under police regulations or otherwise, to compel by resolution, order, or proceedings of any kind, the vaccination of any child, or person of any age; or making vaccination a condition precedent to the attendance at any public or private school in the State of Utah, either as pupil or teacher.

[Reg. Bd. of H.]

5. Nonimmune contacts, vaccination or quarantine.—The isolation and duration of quarantine in contagious diseases shall be as follows:

* * * * *

Smallpox.—* * * For exposed persons quarantine for 14 days from the date of last exposure unless successfully vaccinated, and person and clothing disinfected, or protected by a previous attack of the disease and person and clothing disinfected: *Provided*, That persons who have not been successfully vaccinated previously and who shall submit to vaccination and who are no longer in any way in contact with the patient, may be released from quarantine after disinfection of person and clothing, when evidence occurs that the said vaccination is successful.

[Court decision]

(Utah Supreme Court; *State ex rel. Cox v. Board of Education of Salt Lake City*, 60 P. 1013; 21 Utah 401; decided 1900.) Where smallpox existed in a city, a regulation of the city board of health, requiring vaccination as a condition of admission to school, was upheld as a valid exercise of power on the part of the board, and the local school officials were held justified in excluding an unvaccinated child from school during the continuance of the emergency.

Vermont

[General Laws, 1917]

SEC. 6245. Providing vaccine and vaccination in towns.—A health officer * * * shall provide a suitable supply of vaccine virus when deemed necessary by the State board of health, and of a quality and from a source approved by it, and, during the existence of smallpox in a town, provide thorough and safe vaccination for all persons in such town who may need the same.

[Court decision]

(Vermont Supreme Court; *Hazen v. Strong*, 2 Vt. 427; decided 1830.) Under a statute which made it the duty of the selectmen in each town, in which there should be any person infected with the smallpox, to take the most prudent measures to prevent the spreading of the disease, the selectmen were held to have the power to employ a physician to vaccinate exposed inhabitants of a town.

Virginia

[Code, 1919 (amended to and including 1924)]

SEC. 1493. Compulsory vaccination.—* * * They [local boards of health] may provide for compulsory vaccination * * *

SEC. 1505. Penalty.—When the State board of health or the county, city, or town boards of health have established quarantine lines or ordered compulsory vaccination in an infected boundary, it shall be unlawful for any person to violate either of said regulations, or to aid or encourage another to violate either, and upon conviction thereof he shall be fined not exceeding \$100 or confined in jail not exceeding six months, or both.

This * * * section, however, shall not apply to practicing physicians or undertakers when in the discharge of the duties of their respective professions or callings.

SEC. 1529. Vaccination of teachers and pupils.—* * * Every teacher and pupil shall, within 10 days after entering a public free school, furnish a certificate from a reputable physician certifying that such teacher or pupil has been successfully vaccinated, or is entitled to exemption by reason of peculiar physical condition; but nothing in this section shall preclude a school board from requiring immediate vaccination in case of an epidemic of smallpox, or the annual revaccination of those who have not furnished certificates of proper vaccination. The operation of so much of this section as concerns vaccination may be suspended in whole or in part by the school board of any city or county.

SEC. 1530. Compulsory vaccination; penalties; free vaccination of indigent persons.—The council of any city or town and the board of supervisors of any county, when in their judgment occasion requires, may cause persons residing within the limits of such city, town, or county to be vaccinated with genuine vaccine matter; and the council or any city or town and the board of supervisors of any county may enforce obedience to its ordinance or orders, as the case may be, by fixing fines and penalties for the violation of said ordinance or orders. Should any person, including children who attend the public schools, be unable to pay for vaccination such person shall be vaccinated with genuine vaccine matter at the cost and expense of the city, town, or county, and provision shall be made therefor by the council of the city or town or by the board of supervisors of the county.

SEC. 1531. Vaccination of laborers.—Any person, firm, or corporation employing large bodies of laborers in this State constructing works of public improvement shall, unless said person, firm, or corporation has its own physician for that purpose, be required to have a regular inspection by the board of health of the counties in which said laborers are employed at such times as said board of health may determine. * * * In the discretion of the examining officer the laborers shall be vaccinated at the expense of the said person, firm, or corporation. The * * * cost of vaccination shall have the force and effect of a fee bill of an officer and may be collected by the sheriff or other officer as any such fee bills may be collected.

[Reg. Bd. of H.]

10. Smallpox quarantine.—Immediately upon establishing a diagnosis of smallpox, a strict quarantine of the premises shall be instituted. All persons living in the same house shall be quarantined, unless they exhibit scars of successful vaccination recent enough to be protective, in the opinion of the health officer in charge. Those protected by vaccination shall be allowed to leave the premises after disinfection of their effects, but may not return until the quarantine is raised. Unvaccinated persons resident in the house shall be vaccinated and then quarantined for 14 days.

13. Vaccination or quarantine of certain nonimmune contacts.—Persons not living on the premises who have been exposed to smallpox, and who are not, in the

opinion of the health officer, protected by previous vaccination, shall be quarantined as though they had the disease, but if they submit to vaccination they may be permitted to go at large under such restrictions as the health officer may place upon them.

Washington

[Remington's Compiled Statutes, 1922]

SEC. 4805. *Vaccination of pupils not required where parents object.*—Every board of directors of a school district of the first class shall * * * have the power:

* * * * * Thirteenth. * * * *Provided, however,* That children shall not be required to submit to vaccination against the will of their parents or guardian.

SEC. 6093. *Authority of county boards of health.*—* * * They [the county board of health] shall have the authority * * * to restrain, quarantine, vaccinate, or disinfect any person or persons sick with or exposed to any dangerous, contagious or infectious disease, in accordance with their rules and regulations and the rules and regulations of the State board of health.

SEC. 6094. *Vaccination, etc., of contacts.*—* * * He [the local health officer] shall also quarantine, isolate, restrain, vaccinate, or disinfect any person or persons exposed to any dangerous, contagious, or infectious disease in such manner and for such time as he may deem best or the State board of health may direct. * * *

[Reg. Bd. of H.]

[SEC. 7 (b)] 9. *Vaccination history in reporting smallpox.*—If the disease is or is suspected to be smallpox, the report [of a case] shall in addition show * * * whether the patient has ever been successfully vaccinated, and if the patient has been successfully vaccinated, the number of times and dates or approximate dates of such vaccination.

[SEC. 25] (d) *Immune members of household where smallpox exists, leaving premises.*—Members of the household who have had the disease [smallpox] or been successfully vaccinated within the past seven years may leave the house after having taken a cleansing bath and having dressed in clean, unexposed garments. Such persons must not reenter the quarantined premises during the period of quarantine.

(e) *Nonimmune contacts, vaccination or isolation.*—Persons not living on the premises who are susceptible (not vaccinated nor having had previous infection), and who have been exposed, shall be isolated and kept under the observation of the health officer or physician for a period of 18 days. Exposed immunized persons are exempt from isolation if successfully vaccinated within seven years or if they have had the disease. Submission to vaccination exempts the individual from isolation.

(f) *Free vaccination for indigent persons; vaccination of pupils, teachers, and janitors required when smallpox exists; unfit subjects.*—If smallpox exists in a community, the county or city boards of health shall provide free vaccination for persons who have no funds to procure vaccination from other sources. When smallpox exists in a community, no child, teacher, or janitor shall be permitted to attend school, or teach or labor therein without presenting satisfactory evidence of having been successfully vaccinated within seven years from the date of the commencement of the school term: *Provided*, That should any city or county health officer, having jurisdiction over any school district in which there is a case of smallpox, be of the opinion that any pupil, teacher, or janitor, as mentioned herein, should not be vaccinated because of some physical defect or some active or latent disease, then such health officer shall refer the matter to a board of three competent, licensed, and practicing physicians, actually living within the jurisdiction of such health officer, such board to be appointed by the board of health having jurisdiction over such health officer; should a majority of such board of physicians, after a careful personal examination, be of the opinion that any such pupil, teacher, or janitor is not in condition to submit to vaccination, and that such vaccination would prove harmful to such pupil, teacher, or janitor, then such health officer shall issue a certificate to that effect and such pupil, teacher, or janitor shall not thereafter be required to submit to such vaccination during the time specified by such board of physicians: *Provided*, That should action be referred to a board of physicians as provided herein, then such pupil, teacher, or janitor shall be prohibited from attending, teaching, or laboring in or around such school until the matter is finally determined by such board of physicians.

(g) Vaccination of attendant.—* * * The attendant should be vaccinated
* * *

(h) Restrictions on children in family after recovery or death of patient.—Upon recovery or death of the patient, other children in the family shall not be permitted to enter school or attend public assemblies until a period of 18 days has elapsed. Exemption from these restrictions is through vaccination or showing evidence of successful vaccination within seven years. In order to prevent the closure of schools, all exposed children should be immediately vaccinated.

[SEC. 56] *(f) Free vaccination of contacts on common carriers.*—Should discovery be made of the existence among the passengers [on railroad cars or steam-boats] of any case or cases of dangerous communicable disease, the director of health or his deputies, under the rules and conditions prescribed by the State board of health, as being applicable to the nature of the disease, shall have power * * * to offer free immunization in those diseases to which such prophylactic treatment is applicable to all persons exposed in any car or at any station or port.

[Court decisions]

(Washington Supreme Court; State ex rel. McFadden *v.* Shorrock, 104 P. 214; 55 Wash. 208; decided 1909.) An act which made it the duty of boards of school directors "to require successful vaccination as a condition of school membership" was held constitutional and valid. Regarding what was meant by "successful vaccination," the court agreed with the construction, placed thereon by a board of school directors, "that a person was successfully vaccinated when the customary reaction was obtained by the operation, or when three operations had been performed without obtaining reaction."

(Washington Supreme Court; State ex rel. Lehman *v.* Partlow, 205 P. 420; 119 Wash. 316; decided 1922.) Because of the prevalence of smallpox in a community, the State director of health ordered the enforcement in that community of a regulation of the State board of health which required vaccination as a prerequisite to school attendance when smallpox existed in a community. The regulation in question was held valid.

West Virginia

[Barnes' Annotated Code, 1923, ch. 11]

SECTION 1. Vaccine agents, salary.—Each of the officers mentioned in this section shall receive from the State an annual salary as follows: * * * the vaccine agents, \$50 each; * * *.

[Barnes' Annotated Code, 1923, ch. 15F]

SECTION 1. Vaccine agents, appointment and duties.—The governor shall appoint three properly qualified agents residing, respectively, at Charleston, Kanawha County, at Martinsburg, Berkeley County, and at Wheeling, Ohio County, whose duties shall be to furnish, by mail or otherwise, every citizen of this State who may apply therefor with genuine vaccine matter and with directions how to use it free of charge. And the medical superintendent of the West Virginia Hospital for the Insane at Weston shall act as agent without compensation.

SEC. 2. Appropriation.—The sum of \$150 annually is hereby appropriated for the payment of such agents, \$50 to each agent, respectively, the same to be paid semiannually on order of the governor.

SEC. 3. Term of office.—The terms of office of said agents shall be for four years.

[Barnes' Annotated Code, 1923, ch. 46]

SEC. 9. Free vaccination of indigent persons.—The overseer [of the poor] of any [magisterial] district [in a county] may furnish antitoxin to, or cause to be vaccinated with proper vaccine matter, any person in such district who is unable to pay for the same.

[Barnes' Annotated Code, 1923, ch. 150]

SEC. 2. Vaccine, providing and distribution by State health department.—* * * The State department of health shall provide, at its discretion, vaccine lymph, * * * and distribute same free of charge to county and municipal health officers, to be used for the benefit of the poor and indigent, and in other cases where it may be urgently necessary to check contagions and control epidemics. * * *

SEC. 21. Compulsory vaccination or quarantine; vaccination of pupils when an epidemic prevails; unfit subjects; vaccinating physicians; vaccination certificates; penalties.—The county court of any county in this state, upon petition of 100 voters of the county, shall direct and have enforced upon any party or parties compulsory vaccination or quarantine, in case of smallpox epidemic, in any city, town, or village of the county or in their said county. Any person refusing to be vaccinated when so directed by the county court and who can not give satisfactory proof of having been vaccinated previous to that time, or a certificate from a reputable physician showing that a successful vaccination upon his or her body is impossible or improper, or sufficient reason be given why it has not been done, shall be placed under quarantine as directed by section 7 of this chapter: *Provided further*, That when it shall be directed by the county court of any county in this State, as herein provided, no child or person residing in a locality in which an epidemic is prevailing shall be admitted to or received into any of the public schools in any city, town, village, or the county who can not produce a certificate or satisfactory proof showing a successful vaccination, or a certificate from a reputable physician showing that a successful vaccination upon his or her body is impossible or improper, or sufficient reason be given why it has not been done, and the trustees or other officers having charge, management, or control of such school shall cause the provisions of this act to be enforced when so directed by the county court. And for the purpose of the enforcement of this act the county court may appoint competent physicians in any city, town, village, or the county, and fix their compensation, but such compensation for each successful vaccination as herein provided for shall in no case exceed 25 cents; but no compensation shall be allowed for any unsuccessful vaccination, and such physicians shall provide themselves with good and reliable vaccine virus with which to vaccinate such persons when directed by the county court; and such physicians so appointed or any competent, reliable physician who shall do vaccine work shall give to any person or child a certificate, free of charge, when such person or child has been successfully vaccinated by him, or to any person or child whom he knows to have been successfully vaccinated, when such person or child demands such certificate. If any physician shall give any person a false certificate of vaccination, as herein provided for, he shall be guilty of a misdemeanor, and upon conviction thereof he shall be fined not less than \$20 nor more than \$100. The expenses incurred in carrying into effect the provisions of this act shall be deemed a part of the expenses of the county and shall be levied and collected in the same manner as other county expenses. Any person who shall have smallpox after this act goes into effect going into another county, within three months of said time, shall be required to produce a certificate showing that he has been properly cleansed and disinfected, which certificate shall state what has been done to accomplish this end, and if said certificate be acceptable to the county health officer of the county to which such person shall go, it shall be deemed sufficient and entitle such person to remain therein, but if not deemed sufficient such person shall not be permitted to remain therein. Any violation of this act shall be a misdemeanor, and shall be punished by a fine of not less than \$10 nor more than \$50: *Provided*, That the provisions of this section shall apply in a county only after the county court thereof has passed an order adopting it.

[Reg. Dept. of H.]

No. 29. Vaccination of school children, teachers, and employees required.—No person shall be entered as a teacher, employee, or pupil in any school in the State without having first presented to the principal in charge or the proper authority a certificate from a competent licensed physician of this State, certifying that the said teacher, employee, or pupil has been successfully vaccinated against smallpox; or in lieu of a certificate of successful vaccination, a certificate certifying that a recent vaccination has been done in a proper manner; or proof of immunity by reason of having had the smallpox.

No. 30. Teachers boarding or residing in family in which smallpox exists.—Teachers boarding or residing in a family in which any disease subject to quarantine is known or suspected to exist, shall immediately move to premises not so infected and, provided they have not been actually exposed to infection, may be allowed to continue their attendance at school: *Provided*, That in the case of smallpox such teachers shall have been successfully vaccinated within five years; * * * they may be permitted to resume their school duties.

No. 70. Vaccination history in reporting smallpox.— * * *

Provided, That if the disease is, or is suspected to be, smallpox the report [of a case by a physician] shall, in addition, show * * * whether the patient has ever been successfully vaccinated, the number of times and dates or approximate dates of such vaccination; * * *

Wisconsin

[Statutes, 1925]

40.71 (1) Prohibition of school attendance of unvaccinated pupils and teachers when smallpox exists.—To prevent the spread of smallpox the local board of health of any city, incorporated village, or town, or the State board of health, when the disease is present in any school district or part thereof, which is included in such city, incorporated village, or town, shall forthwith prohibit the attendance at school in any such district or part thereof for a period of 14 days, after the appearance of smallpox, of any and all pupils and teachers, who have not been successfully vaccinated or who fail to show a certificate of recent vaccination.

(2) Extension of period of exclusion.—Should new cases of smallpox continue to develop in such school district or part thereof, after the expiration of 14 days, the local board of health shall upon the advice and consent of the State board of health, renew such order for another period of 14 days, or so many days thereof as the State board of health may deem necessary, in order to control the epidemic.

(3) Free vaccination of children.—When vaccination or exclusion from school is ordered in conformity to subsection (1) of section 40.71 of the statutes the local board of health shall provide for the free vaccination of all children in any school district or part thereof during an outbreak of smallpox, the necessary expense thereof to be paid by the city, incorporated village, or town upon the order of the local board of health. The State board of health shall determine the method to be employed in vaccination against smallpox, designate the person or persons to do the work, and may determine the maximum fee to be charged. The provisions of this section shall not be construed to prevent parents or guardians from employing physicians of their choice to perform such vaccinations and pay the expense incurred.

352.51 Labeling of vaccine; penalty.—Any person who or corporation which shall sell or gratuitously distribute any vaccine virus, therapeutical serum, modified toxins, or similar products with the intention that they shall be used in the prophylaxis or treatment of contagious disease, without having his or its name stamped in plain English letters thereon or on the package or bottle containing the same, shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than \$25 nor more than \$100.

[Reg. Bd. of H.]

RULE 10. Duration of quarantine.—The isolation of patients and duration of quarantine in dangerous quarantinable diseases shall be as follows:

* * * * *

(g) Smallpox.— * **

For exposed persons.—Quarantine for 14 days from the date of last exposure, unless the exposed person submits to immediate vaccination.

NOTE.—If exposed persons are vaccinated at once, they may live at the home which is under quarantine and go about their work as usual, provided they obtain a written permit to do so from the health officer. Immediate vaccination or quarantine is required under this rule even though the exposed person has previously been successfully vaccinated or had smallpox. * * * Well children can go to school from the home if they are vaccinated and do not come in contact in any way with the smallpox patient or clothing soiled by the patient. * * *

[Court decision]

(Wisconsin Supreme Court; State ex rel. Adams v. Burdge, 70 N. W. 347; 95 Wis. 390; 37 L. R. A. 157; 60 Am. St. Rep. 123; decided 1897.) A rule of the State board of health, which required the vaccination of children as a condition of attendance at school, was held void as being beyond the power of the board to adopt in the absence of vaccination legislation. The rule was also declared void because unreasonable, there being no immediate necessity for the same.

Wyoming

[Compiled Statutes, 1920].

SEC. 3603. *Compulsory vaccination; penalty.*—The State board of health may adopt such measures for the general vaccination of the inhabitants of any city, town or county in the State, as they shall deem proper and necessary to prevent the introduction or arrest the progress of smallpox; and every person who shall refused to be vaccinated, or prevent any person under his care and control from being vaccinated, or who shall fail to present himself or herself to the county health officer or a practicing physician acting under the direction of the board or county health officer, for the purpose of being vaccinated, if such physician believes vaccination necessary, shall upon conviction be fined not more than \$100 or less than \$10 or imprisoned in the county jail not more than 30 days.

[Reg. Bd. of H.]

Smallpox—Methods of control.—* * *

3. *Quarantine of contacts* for 21 days from date of last exposure or until protected by successful vaccination.

4. *Immunization.*—External inoculation with cowpox virus shall be offered to all contacts.

* * * * * * *
7. *General measures.*—General vaccination in infancy; revaccination of children when entering school and of the entire population when the disease is prevalent. Encouragement of every city passing an ordinance requiring vaccination of school children before they may be permitted to attend school.



